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DHA News Editorial Board:
Philippe Boullé, Mounira Skandrani, Marie Lou Darrican, Maite Pascual, Richard Koser (Consultant).
Department of Humanitarian Affairs.
Palais des Nations, CH-1211 Geneva 10, Switzerland.
Tel.: United Nations (+4122) 9171234
DHA Emergency ONLY: (+4122) 9172010
DHA-Geneva Staff - Direct dialling (+4122) 917 + Individual Extension
Facsimile: (+4122) 9170023
Telex: 414242 dha ch
UNIENET e-mail Dialcom 141:DHAGVA
INTERNET e-mail DHAGVA@CGNET.COM
EARN/BITNET e-mail DHAGVA@UNICC

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Foreword

As I assume office as Under-Secretary-General for Humanitarian Affairs and Emergency Relief Coordinator, I would like to pay a tribute to my predecessor, Jan Eliasson who, during the Department's first two years, helped lay the foundations for a sound structure for inter-agency and international cooperation for responding to humanitarian emergencies.

Despite the dramatic increase in emergencies and their complexity, much has been accomplished. In 1993, through the use of the Consolidated Appeals process, nearly US $3 billion were raised; 27 Appeals were issued addressing the needs of 65 million people in 30 countries. The preparation of these appeals has helped promote a culture of cooperation among the organizations of the UN system and their partners. The operation of the Central Emergency Revolving Fund of US $50 million, established to facilitate rapid humanitarian action by United Nations Agencies, has assisted this process. Until the end of the first quarter of 1994, US $75 million were extended to operational organizations for providing humanitarian response to affected populations in 26 emergencies. The Inter-Agency Standing Committee (IASC), with the executive heads of relevant humanitarian organizations, the International Committee of the Red Cross (ICRC), the International Federation of Red Cross and Red Crescent Societies, the International Organization for Migration (IOM) and non-governmental organizations (NGOs), has gradually assumed its role as an effective instrument of policy coordination, but much remains to be done.

All this has been undertaken at a time in which the Department of Humanitarian Affairs has also been engaged in establishing and organizing itself. With limited resources, this has been possible mainly because of the dedication and commitment of the members of the Department, as well as of the humanitarian organizations and NGOs. Many have often worked under conditions of grave danger to their security and many have lost their lives while bringing relief to the suffering.

If ethnic and civil strife, not to mention land mines, have taken a heavy toll of human lives, so have natural disasters, such as cyclones, earthquakes and floods. In 1992 alone, for example, the losses sustained by developing countries for natural calamities reached US $62 billion, surpassing for that year total development aid to those countries which was US $60.5 billion.

These are difficult times. We are called upon to perform miracles. In some cases we have succeeded - the response to the Southern African drought where 18 million lives were under threat in 10 countries is an example of what cooperation among the UN organizations and NGOs, working closely with national governments, can achieve. This and many other successes are encouraging but the task ahead of addressing the needs of over 25 million internally displaced and 20 million refugees remains truly a Herculean challenge.

We must also look beyond emergency relief to rehabilitation, reconstruction and development, and to assisting in reducing the vulnerability of developing countries and building their national capacities. If we are to successfully carry out our obligations to the victims of disasters and emergencies and to the donors - who have contributed generously to support humanitarian programmes - we will have to achieve a greater rationalization of our efforts and enhanced cooperation.

Given what we have been able to accomplish under extremely difficult circumstances over the past two years, I look to the future with a sense of realistic optimism. We can and we must continue our efforts to work together, taking advantage of the respective strengths of the organizations of the system.

I want to take this opportunity to extend to all those involved in this common humanitarian endeavour my sincere thanks.

Peter Hansen
Under-Secretary-General

A Year Dominated by Peace-Keeping Operations

The Security Council and Humanitarian Intervention

The link between peace and prosperity has long been recognised by the United Nations. The Security Council has often been concerned by the plight of people in conflict areas and the repercussions for the distribution of humanitarian assistance. In the recent political climate, the Council has been able to achieve much more than simple expressions of concern, and has expanded the range of its activities. In 1993 the Council worked even harder to improve security in countries where people were in desperate need of humanitarian assistance.

The Charter of the UN gives the Security Council the ability to authorise action, including enforcement, on any matter which it considers a threat to the peace, a breach of the peace or an act of aggression. At a security summit in January 1992, the President of the Security Council said that "peace-keeping tasks have broadened considerably in recent years to include election monitoring, human rights verification and the repatriation of refugees". In the future, he proposed, the Security Council may have to become more concerned by "non-military sources of instability in the economic, social, humanitarian and ecological fields".

The increased demand for the Security Council's attention resulted in a record-breaking 171 meetings of the Council for the year of 1993, and the passing of 93 resolutions. In a year dominated by peace-keeping operations five new UN missions were established and the mandates of eleven others were extended.

Photo UN/A. Morvan

Secretary-General Boutros Boutros-Ghali (centre) and Lieutenant-General Phillipe Morillon of France, (left), Force Commander of the United Nations Protection Force (UNPROFOR) in Sarajevo.

One of the most satisfying meetings, however, involved the withdrawal of UN forces. On 4 November, the Council recognised the successful completion of the mandate of the UN's largest peace-keeping force, the United Nations Transitional Authority in Cambodia (UNTAC). At its peak, UNTAC had involved 22,000 civilian and military personnel. The UN contingent had been present for more than 18 months, providing a stabilising influence that allowed Cambodians to begin rebuilding their battered country. Apart from supervising the May 1993 elections, UN personnel cleared an uncountable number of mines and assisted the return and reintegration of some 400,000 refugees. UN teams also trained local staff to carry on mine clearance after the withdrawal of the UN. Observers contributed to the legitimacy of the first free elections in 40 years and ensured violence remained at a minimum. The degree of success can be measured by the fact that nearly 90 per cent of registered voters turned out to cast their vote.

Photo UN/J. Isaac

An UNTAC soldier from Bangladesh playing with a Cambodian child in Siem Reap Province.

The situation in the former Yugoslavia took up much of the Council's time in 1993. In all, 48 meetings were devoted to the problems of that war-torn region.

In a year dominated by peace-keeping operations five new UN missions were established and the mandates of eleven others were extended.

The Council extended the mandate of the Protection Force in Croatia (UNPROFOR) despite problems in disarming the opposing forces and the inability of refugees to return to their homes in the Kraijina region. Without the presence of UNPROFOR, there would be nothing standing between the Croatian army and Serb militia.

In neighbouring Bosnia and Herzegovina, the Council banned all flights and proclaimed Sarajevo and five other "safe areas" in the republic. NATO has since acted to enforce the no-fly zone and secure the safety of Sarajevo. UNPROFOR II, which has expanded to include more than 25,000 military personnel, is one of the largest forces ever assembled under the UN flag. In an attempt to bring an end to the practice of "ethnic cleansing" and other vile acts, the Security Council in May established an International Tribunal to prosecute persons accused of serious violations of international humanitarian law. This tribunal, situated at The Hague and inaugurated on 17 November, is the first international attempt since the Nuremberg and Tokyo trials to bring war criminals to justice.

The Security Council is involved in several humanitarian crises in Africa. Within Somalia, the Security Council has assisted the UN in its massive humanitarian task. The situation had deteriorated in 1992 to the point where UN troops were unable to leave their compound in Mogadishu, but improved when the United States led a coalition to secure the city and allow humanitarian aid to be delivered. In March 1993, the UN Operation in Somalia (UNOSOM II), eventually numbering more than 30,000 military and civilian personnel, took over from the coalition. While UNOSOM II began work to disarm the various factions, the Security Council continued to put pressure on them to agree to a political settlement. These efforts quickly bore fruit, for in March, fifteen Somali movements signed an agreement in Addis Ababa, Ethiopia, to put an end to the fighting and begin rebuilding their country. The Council reminded all factions that UN involvement relies on continued efforts to achieve a lasting peace and political reconciliation.

Despite the well-publicised conflict between the United States and one of the factions, most Somalis support the UN involvement. There is no doubt that the intervention occurred in time to save countless lives that would otherwise have been lost in the fighting and famine.

In Angola, the Security Council was concerned by the breakdown of peace and the renewed offensive on the part of the National Union for the Total Independence of Angola (UNITA). Although peace talks had collapsed, the Council did not withdraw the UN Angola Verification Mission (UNAVEM II), hoping the mission could get the parties talking again, and imposed sanctions on UNITA. In December, the Council was rewarded when negotiations held out hope of an effective cease-fire and the implementation of peace accords signed in May 1991.

The situation in Rwanda prompted the Council to establish two forces. In cooperation with the Organisation of African Unity (OAU), an observation mission was established on the Ugandan border to ensure no military assistance crossed into Rwanda. The force is also mandated to assist the OAU keep the peace. Following the signature of a peace treaty by the government and the Rwandese Patriotic Front in August, an assistance mission for Rwanda was established, to withdraw after national elections by December 1995.

The United Nations Observer Mission in Liberia (UNOMIL) was also coordinated with OAU activities, to help monitor the Cotonou Peace Agreement for Liberia. However, progress towards a lasting peace was a precondition for the extension of UNOMIL's mandate.

The same condition was placed on the observer mission in Georgia, established in April to verify compliance by the government and Abkhaz forces with a July cease-fire agreement. That mission was expanded in December, and its mandate modified to include monitoring and reporting on the ground.

Elsewhere in the Newly Independent States, Nagorno-Karabakh was the focus of four Security Council resolutions. The Council supported the work of the Conference on Security and Cooperation in Europe (CSCE) and its "Adjusted timetable of urgent steps to implement Security Council resolutions 822 and 853," including demands for the withdrawal of forces from Armenia, Azerbaijan and Nagorno-Karabakh.

Photo UN/J. Isaac

The humanitarian situation in Haiti prompted strong action from the Council. On 23 June, the Council imposed an oil and arms embargo on the de facto regime led by Lieutenant-General Raoul Cedras. The sanctions were lifted after the coup leader signed an agreement with exiled President Jean-Bertrand Aristide in late August, but was re-imposed when the UN Mission In Haiti was prevented from deploying. The Security Council remains gravely concerned by the situation in Haiti.

As the United Nations has become more involved with conflicts around the world, the risks for those working with the organisation have grown. In September 1993, the Security Council adopted resolution 868 on the safety of UN personnel. In future, a status of operation agreement will have to be negotiated with the host country before every peace-keeping operation. The Council also said it would "consider measures it deems appropriate" in response to any interference with the carrying out of its task.

The Security Council's concept of a threat to "international peace and security" has broadened greatly in the past couple of years. Intervention is now undertaken in areas which were previously considered the internal affairs of independent states, but the Council still makes a careful decision based on the probability of achievement. The Council cannot impose peace on warring parties, but in situations of complete chaos, such as Somalia, the Council may intervene to supply emergency assistance to people caught in the crossfire. ■

Humanitarian Challenges for the UN: Ethical Standards as Reality Rather than Pious Hope

by Jan Eliasson
Former UN Under-Secretary-General for Humanitarian Affairs

In this new environment, in which the United Nations occupies centre stage, we should seek to integrate peace-keeping, peace-making and humanitarian action.

Since the end of the cold war, humanitarian concerns can, for the first time, take the centre of the world stage. Humanitarian action can play a role as a catalyst both to help people in need and to develop a new, dynamic form of diplomacy.

The positive side of the new international environment is the breakthrough of democracy, particularly in Africa and the countries of the former Eastern bloc. This is a welcome development that requires the support of the international community to ensure these new democracies also make economic and social progress.

There is however a dark side to the end of the ideological struggle which over-simplified international relations. Ethnic, tribal and religious conflicts have broken out much more vehemently than many of us expected. If communities in conflict do not come to terms with their history, it will be difficult to avoid the phenomenon the Secretary General has called "micro-nationalism", that is the splintering of States into ever-smaller entities based on religion or ethnicity.

In this new situation, the United Nations occupies centre stage. Today, the UN is expected to be more assertive, more active and more operational. The Security Council reacts more quickly, and has made use of its powers as never before. In the former Yugoslavia and in Somalia the Council has, for the first time, invoked Chapter VII to ensure the delivery of humanitarian relief. Increasingly, internal conflicts are being brought before the Security Council. In civil wars and other conflicts alone, the UN is providing humanitarian assistance to nearly 60 million people in about 30 countries.

If we have learned anything - not least from Somalia and the former Yugoslavia, but in dozens of humanitarian emergencies - it is that the UN should seek to integrate efforts at peace-keeping, peace-making and humanitarian action as part of peace-building. The UN cannot be reduced to be a provider of law and order, nor can it simply be a distributor of food and blankets, or supervise elections and then leave a country.

In a place like Somalia, humanitarian action can serve as a dynamic force for peace. It can create a momentum towards restoring security and promoting reconciliation. If we restore health clinics and water supplies, if we re-open schools and remove land-mines, if we create jobs we can make it possible for people to re-establish their communities and plan a future for their children. If peace is to return to Somalia, young Somalis must see an alternative to riding in the back of a jeep, brandishing an automatic weapon.

Relief workers and peace-keepers have become targets in far too many conflict situations. The UN and other humanitarian symbols must be respected in humanitarian operations as representing fundamental legal and ethical values. If we in the humanitarian community are to succeed, we must adhere strictly to the guiding principles of humanity, neutrality and impartiality. While we recognize the interdependence between political, military and humanitarian action, we must also strive for our efforts to be, and to be perceived as, impartial. Otherwise, our legitimacy and our utility are placed at risk.

Rehabilitation and Development: Addressing Root Causes to Prevent Emergencies

For the last two years, we in the humanitarian community have played the role of firemen, working both day- and night-shifts. We need to identify the

arsonists and repair faulty wiring before the blazes begin. The UN's capacity for early warning must be improved, and we must overcome the obstacles to translating early warning into early action. Just as a smoke alarm costs less than calling out the fire brigade, preventive action is far cheaper, both in terms of human suffering and money, than reacting to a full-scale disaster.

We have seen that early warning and coordinated international response can prevent catastrophes of the first order. In 1992, southern Africa was suffering from the worst drought in a century. Food production had been cut in half. Eighteen million people in ten countries were directly affected. By a massive effort, US $700 million in assistance from the international community was mobilized. Humanitarian diplomacy opened South African ports for the delivery of food aid. Four million tons of food, five times the amount normally handled in the region, had to be imported and distributed. The World Food Programme successfully took on the full logistical responsibility.

A major famine was averted. Tens of thousands of lives were saved. Perhaps hundreds of thousands who might have left their homes to seek food and water remained in their villages. Political upheaval which might have destabilized the entire region was avoided.

This experience illustrates an important point. In order to address root causes and prevent emergencies, humanitarian assistance must support longer-term rehabilitation and development. Strategies for humanitarian assistance must allow the international community to turn over, as soon as possible, the responsibility for reconstruction and development to the affected people themselves. We can supply the fire-proofing materials, but people must be allowed to build their own houses.

We must stand for the principles laid down in the UN Charter and for that humanitarian imperative which is based on fundamental requirements of human decency.

Humanitarian Diplomacy and Coordination

In 1991 the General Assembly adopted a landmark resolution (46/182) which gave us new tools to work with: the Department of Humanitarian Affairs itself; the Central Emergency Revolving Fund of US $50 million; and the Inter-Agency Standing Committee which brings together UN agencies, intergovernmental organisations and major NGOs to coordinate humanitarian policy.

Photo UN/J Bleibtreu

Cambodian civilians passing a UN convoy as UNTAC soldiers from France (right) look on.

Photo UN/UNIFIL

"Humanitarian diplomacy" has also come to be recognised as a dynamic force for gaining access to people in distress. We have negotiated "humanitarian corridors" which are almost the equivalent of local cease-fires, for example in Sudan and Angola.

I am convinced that the only way to make the humanitarian machinery work more efficiently is to put the problems, not the institutions, at the centre of our analysis. Decisions about the division of responsibility among agencies should flow from an analysis of the concrete problems and the measures needed to deal with them.

Coordination must, above all, be strengthened at the field level, where needs must be assessed and where assistance must reach those affected as quickly as possible. The coordinator in the field must have the necessary capacity, authority and support from Headquarters and the operational organizations to make and implement decisions.

An essential truth is that the UN cannot do it alone. The NGOs are crucial to UN relief efforts. They bring their own perspective and knowledge to relief operations and they are essential operational partners, bringing substantial resources and people to field activities.

Strategies for humanitarian assistance must allow the international community to turn over the responsibility for reconstruction and development to the affected people themselves.

The United Nations as a Moral and Ethical Force

Reflection on the nature and response to humanitarian crises triggers important moral and ethical questions. The formulation of these questions is the first step towards effectively dealing with the issues they raise. In the final analysis, the United Nations is a moral and ethical force. We must stand for the principles laid down in the UN Charter, in international and humanitarian law, and for that humanitarian imperative which is based on fundamental requirements of human decency.

It is important that these issues be discussed in the United Nations because the UN is both dependent upon, and the expression of the collective political will of, the Member States. In an age of interdependence, the idea of collective security has grown beyond military matters to embrace political, economic, social and cultural developments.

The strength of the United Nations will ultimately be tested by how we steer the course through these basically moral issues, and how forcefully we can press the case for international cooperation. Coordinated action is much more than the sum of its parts. Multilateral action will, I hope, be accepted as the way forward, to justice and solidarity, as well as security and, for many, survival.

(Edited version of an address by Jan Eliasson before the Foreign Policy Association, New York - 15 December 1993) ■

New Countries in a New World

Many new states have joined the international community in recent years, and although they differ greatly in many respects, they face common problems. One of the biggest problems they must cope with is poverty. Countries gaining their independence must face up to the economic consequences.

Georgia split peacefully from the Soviet Union, but now has to cope with internal tensions and the inevitable effects of civil war on infrastructure and the economy. The separation of Eritrea from Ethiopia, ratified by the April 1993 referendum, marked the end of a long struggle for independence which left the country battered and much of the infrastructure in ruins.

Poverty in these two countries has combined with large numbers of refugees, another consequence of civil strife. They both face enormous challenges to reintegrate the displaced people and rebuild. The international community may feel that their emergence is the end of a period of hardship, but these new nations need the understanding of better-established states if they are to break free of their dependence on international aid.

Eritrea:

rebuilding a country devastated by war and drought

On 27 April 1993, following a referendum of Eritrean nationals, including those living abroad, Eritrea was declared a sovereign country. After thirty years of war, the new nation faces the tremendous challenge of re-building itself, and of reintegrating the hundreds of thousands of Eritreans who now want to return to their homeland. Given the necessary assistance, they can not only return but also become a powerful force for rebuilding their country which has suffered from the effects of thirty years of wars and repeated droughts.

Between the end of the war in 1991 and the referendum, about 70,000 people had returned spontaneously. However, the lowland regions of Eritrea, where most of the 430,000 future returnees are expected to settle, are the very areas where the war was most prolonged and its effects especially severe. While arable land and water is currently available, most of the basic infrastructure, from houses and livestock to roads and health facilities, will have to be rebuilt from a very limited base.

In June 1993 the Government of Eritrea and the United Nations launched a

Programme for Refugee Reintegration and Rehabilitation of Resettlement Areas in Eritrea (PROFERI). An appeal for US$ 262,202,279 to cover the period up to January 1997. While pledges for the repatriation phase were high, a substantial shortfall still exists for the rehabilitation phase. These difficulties have been compounded by a crop failure due to poor rainfall and widespread pest infestation. Considering the likelihood of a large food shortfall in the following months, the Government decided late in the year to press ahead with a pilot programme in a few areas. These difficulties were compounded by a severe hailstorm on 15 April which struck the port city of Massawa and nearby villages. Entire residential neighbourhoods were flattened by the storm and more than 15,000 people were left homeless. Food aid stocked in warehouses was ruined, and mature crops waiting to be harvested were destroyed.

Community rehabilitation, not just privileged repatriation

Ironically, the same war that devastated Eritrea has also helped to forge some of its most important assets. These include a strong sense of national unity and tolerance, a tradition of self-sufficiency and of popular participation, and a reputation for efficiency and honesty. These qualities offer a strong basis on which reintegration and rehabilitation efforts can be undertaken, and provide assurance that international assistance can be effectively utilised. One of the main objectives of PROFERI is to avoid jeopardising this sense of community solidarity by creating a privileged class of returnees in the midst of a deprived local population. For this reason, PROFERI focuses on communal services such as roads, wells, health facilities and schools. Local families will receive assistance at the same time as the refugees, and it is expected that traditional social structures will ensure that livestock, especially plough animals, will be widely shared among the larger community.

While the setbacks encountered by the Government have altered the timetable for return and reintegration of the refugees, the overall strategy has not changed. The wider community into which the returnees enter must benefit from their repatriation, or they will place a greater strain on extremely limited resources.

Georgia: fertile soil breeds violence

Photo DHA/F. Gentilloni

Georgia, which voted for independence from the Soviet Union on 31 March 1991, should be producing one of the world's largest agricultural surpluses. Instead, a shortfall of 400,000 metric tonnes was recorded in 1993. Large tracts of fertile black soil, which supports fruit, vegetables, tobacco, tea and spices, has been lying fallow since civil conflict broke out in the autonomous region of South Ossetia in 1989 and intensified in August 1992 when Abkhazia, another province, declared its sovereignty. The protracted fighting has left 250,000

Photo DHA/P. Orloff

people displaced within Georgia or outside the country and crippled the country's economy.

The population of Georgia is 70 per cent Georgian, with a number of minority groups of which the Ossetians (3 per cent) and Abkhazians (1.9 per cent) are by no means the largest. However, both groups have traditional homelands in which they represent a significant proportion. South Ossetia had a pre-conflict population of 100,000, of which two-third were Ossetians, who had been brought in as farmers by Georgian noblemen in the 19th century.

The civil strife in South Ossetia worsened in 1990 when the province announced its sovereignty. Georgia's President at the time, Zviad Gamsakhurdia, retaliated by cancelling the territory's autonomous status and sent in troops to crush the uprising. After intense fighting, a Russian-brokered cease-fire was signed in June 1992.

Abkhazia, a popular tourist destination in the time of the Soviet Union, shares a border with Russia and has a long stretch of beautiful coast on the Black Sea. The Abkhazians were once a majority in the region, but Georgians and Russians were encouraged to immigrate there during the Soviet era. Before the fighting, Georgians outnumbered Abkhazians by 46 per cent to 18 per cent of the region's total population.

The Abkhaz situation has been much more difficult to resolve. Abkhaz leaders have long complained that they did not have sufficient autonomy, and in 1991 obtained political concessions from President Gamsakhurdia. However, when the territory declared its sovereignty, Georgian troops were sent to the Abkhaz capital of Sukhumi and the fighting escalated.

In the eighteen months which followed, Georgian and Abkhaz troops battled for control of the province. Three cease-fires were signed and broken, the last when Abkhaz troops launched a successful assault on Sukhumi in September 1993. The situation was further complicated by the revolt by Gamsakhurdia against his replacement as President, Eduard Schevardnadze in the same month. That revolt ended in December, but it took several months more and the assistance of Russian troops to bring the fighting in Abkhazia to an end.

The years of war have taken a toll on the Georgian people. A quarter of a million have been displaced. Sukhumi has lost two-thirds of its pre-war population of 120,000. Even without the conflicts, the country would have suffered the same problems as other former Soviet Republics, including declining industrial production and high inflation, brought on by low technology, poor quality, erratic services and corruption.

Recognising the need for international assistance during the fighting, President Schevardnadze appealed for help. In early 1993, a DHA-led inter-agency mission visited Georgia to assess the needs of the people. The mission resulted in the "United Nations Consolidated Appeal for Emergency Humanitarian Assistance for the Most Vulnerable Among the Conflict-Affected Population in Georgia", launched on 1 March. The appeal was for US $20.9 million to meet the immediate needs of 108,000 needy people, including refugees, returnees, women, children, the sick and the elderly.

While response from some sectors was good (notably the Governments of Italy, Switzerland and the United Kingdom), by the end of the year less than half of the appeal had been covered. In the meantime, two more appeals had been launched by DHA, one in October for emergency assistance and an update in December to the March Consolidated Appeal, to cover the needs of displaced and vulnerable people through to April 1994. Despite the urgency of both appeals, donor response has been slow.

Georgia faces many economic, ethnic and political problems in the years ahead. If this potentially rich country is to find its feet quickly, the international community must respond to the immediate needs of the Republic. Only when the country has overcome the hardships of the present can it look to the future.

■

Consolidated Inter-Agency Appeals: For What, Whom and Why?

Over the past three years a new piece of jargon has entered humanitarian language. The Sudan, former Yugoslavia, Kenya, Armenia, Azerbaijan, Rwanda, Burundi, Eritrea and drought-affected countries in Southern Africa have been the beneficiaries of United Nations "Consolidated Inter-Agency Appeals". In 1993, alone, there were more than a dozen such appeals. But in the final analysis, **what is the purpose of these sorts of appeals, whom do they benefit and why?**

The very concept of the consolidated appeal is deceptively straightforward. When the General Assembly in December 1991 urged the Secretary-General to provide a mechanism to promote the concept, the need to incorporate the disparate emergency relief requirements of United Nations operational agencies into one holistic appeal seemed sensible and feasible. More than feasible, it was regarded as essential, for "consolidation" was regarded as a cost-effective way to fund emergency assistance at a time when funding sources were becoming increasingly stretched.

Three principles underlined the consolidated approach. The first was that United Nations agencies would in times of major or complex emergencies work together in the emergency affected country and normally with the government of that country to determine within one week the nature of the crisis and the numbers and requirements of the affected population. The second principle was that consolidated appeals would "prioritise" needs, namely, clearly indicate that segment of the population and its requirements most urgently in need. Finally, consolidated appeals were to reflect to the extent possible agencies' efforts to integrate their respective activities.

As efforts to promote consolidated appeals intensified, it became apparent that in many instances UN agencies in emergencies had limited experience to guide them on ways to achieve consolidated appeal objectives. At the same time, it was also increasingly evident that effective consolidation would necessarily require the perspective of non-governmental organisations, Red Cross and Red Crescent Societies as well as other relevant governmental and community bodies. This raised the issue of whether such non-UN bodies would want to participate in seeking resources through such appeals.

These issues were compounded by even more complex questions. To what extent was it realistic to assume that prioritisation and integration, inherent in the consolidation process, could be achieved in one week? Given an unrealistic timetable, was UNHCR, when confronted with a major refugee crisis, to wait to seek resources until a consolidated appeal and all its prerequisites were finalised? Even more fundamental, did prioritisation mean that only life-saving needs were to be addressed, leaving any move towards rehabilitation or development-linked relief programmes to await another kind of appeal?

Systems-wide response

It was felt that the mechanism of consolidated inter-agency appeals had to be used in those instances where an emergency required a system-wide response. It was agreed that the consolidated inter-agency appeal should be regarded as a process, from initial assessments of an emergency situation through to strategic objectives, and not merely an appeal document. Hence, organisations outside the UN system not wishing to seek resources through consolidated appeals were nevertheless encouraged to work with UN agencies to help establish the severity of emergencies and prioritise needs.

Strategic planning is an essential element of the consolidated appeal process. All too often what had been lacking in previous appeals was a sense of ultimate objectives. While the appeal continues primarily to be the vehicle through which resources to meet priortitised and integrated needs are sought, a strategy section points to the steps needed to go beyond relief, into rehabilitation and practical vulnerability-reducing development.

This strategic planning element offers at least two important opportunities. The first is that it provides an opportunity for governments of affected countries, UN agencies and non-governmental organisations to establish a common set of goals. Secondly, while agencies may not be able to include funding

DHA Consolidated Inter-Agency Appeals Launched in 1993

January	**UN Emergency Programme for the Horn of Africa (four separate appeals for Eritrea, Ethiopia, Kenya, Sudan)**
March	**United Nations Relief and Rehabilitation Programme for Somalia**
April	**UN Consolidated Inter-Agency Appeal for Former Yugoslavia**
April	**UN Consolidated Inter-Agency Appeal for Rwanda**
May	**UN Consolidated Inter-Agency Appeal for Angola**
June	**Joint Government of Eritrea and United Nations Appeal for Eritrea**
July	**Consolidated United Nations Inter-Agency Humanitarian Programme for Armenia**
July	**Consolidated United Nations Inter-Agency Humanitarian Programme for Azerbaijan**
October	**Emergency Assistance to Control Visceral Leishmaniasis (kala-azar) in Sudan**
November	**UN Interim Consolidated Inter-Agency Appeal for Burundi**
November	**UN Consolidated Inter-Agency Appeal for Former Yugoslavia**

requirements to meet such post-relief objectives in consolidated appeals, strategic planning sections offer agencies an early warning to donors about what must follow if relief efforts are to have any sustainability.

Recognising that there were instances where agencies needed to seek resources more urgently than the time for preparing a consolidated appeal might allow, it was accepted that agencies could issue individual "interim appeals" as long as such interim measures were eventually incorporated into the consolidated appeal process.

The Inter-Agency Standing Committee at the same time recognised that, if the consolidated appeal process was to be "field-based", greater attention would have to be given to providing guidelines on how best to implement the process. The proposed guidelines would also require greater attention to linkages with those outside the system, such as NGOs, in order to incorporate their views and assessments in an overall strategy. These guidelines are currently being developed.

The very basic issue of prioritisation remains to be more clearly defined. Is it reasonable to assume that in a large-scale, major or complex emergency one can readily make such determinations except in a most general sense?

In the final analysis, the consolidated appeal process is still at a formative stage of development. In the words of one former Assistant Secretary General for Emergency Relief in Ethiopia, ultimately the key will be to establish "a habit of cooperation". This cooperation will depend upon an acceptance by UN agencies, relevant governmental authorities, NGOs and others that there is value in the effort, that individual response capacities are not hindered by the process and that the international donor community will in its turn support the principle objectives of appeals consolidation. In time, the "for whom, what and why" will be answered by a more coherent and integrated response to the needs of the disaster-afflicted and by a clearer strategy for steering the afflicted towards more durable development. ■

Photo M. Vercruysse

Consolidated Inter-Agency Humanitarian Assistance Appeals
Summary of Requirements and Contributions
New/Ongoing in 1993

	Requirements	Funding	Shortfall	% of Needs Covered	Implementation Period
Afghanistan	59,828,000	28,652,197	31,175,803	47.89%	Oct 93 - Mar 94
Afghanistan	138,156,000	47,231,026	90,924,974	34.19%	Jan 93 - Sep 93
Angola	226,054,100	102,643,565	123,410,535	45.41%	May 93 - Apr 94
Burundi	7,949,722	4,768,465	3,181,257	59.98%	Nov 93 - Feb 94
Southern Africa *	950,621,543	724,236,155	226,385,388	76.19%	Jun 92 - May 93
Haiti	62,727,000	9,884,639	52,842,361	15.76%	Mar 93 - Sep 93
Iraq (Phase VI)	467,067,650	117,324,693	349,742,957	25.12%	Apr 93 - Mar 94
Iraq (Phase V)	201,696,682	206,632,880	(4,936,198)	102.45%	Jul 92 - Mar 93
Lebanon	28,745,200	3,447,462	25,297,738	11.99%	Aug 93 - Jan 94
Liberia	284,188,450	2,965,626	281,222,824	1.04%	Nov 93 - Dec 94
Liberia	149,958,000	102,012,000	47,946,000	68.03%	Jul 91 - Sep 93
Tajikistan	33,887,050	15,656,195	18,230,855	46.20%	Jan 93 - Mar 94
Armenia	28,477,715	15,293,768	13,183,947	53.70%	Jul 93 - Mar 94
Azerbaijan	26,435,043	13,903,540	12,531,503	52.60%	Jul 93 - Mar 94
Georgia	24,604,065	5,301,335	19,302,730	21.55%	Dec 93 - May 94
Rwanda	78,533,519	30,816,105	47,717,414	39.24%	Apr 93 - Dec 93
Eritrea	80,511,855	43,480,434	37,031,421	54.01%	Jan 93 - Dec 93
Ethiopia	300,965,048	146,337,469	154,627,579	48.62%	Jan 93 - Dec 93
Kenya	185,651,470	124,327,507	61,323,963	66.97%	Jan 93 - Dec 93
Sudan	194,536,780	124,233,363	70,303,417	63.86%	Jan 93 - Dec 93
Somalia	148,086,950	36,869,152	111,217,798	24.90%	Mar 93 - Dec 93
Former Yugoslavia	518,617,553	301,402,355	217,215,198	58.12%	Jan 94 - Jun 94
Former Yugoslavia	993,856,315	757,096,892	236,759,423	76.18%	Jan 93 - Dec 93
Zaire	84,248,520	29,770	84,218,750	0.04%	Oct 93 - Jun 94
Mozambique	609,688,760	567,416,588 **	42,272,172		May 93 - Apr 94
Total	**5,885,092,990**	**3,531,963,181**	**2,353,129,809**	**60.02%**	

* *Drought Emergency in Southern Africa (DESA), including: Angola, Botswana, Lesotho, Malawi, Mozambique, Namibia, Swaziland, Tanzania, Zambia and Zimbabwe.*

** *Of the total commitments of US$ 567.4 referenced, US$ 423.1 has already been obligated for disbursement*

The Evolution of the Inter-Agency Standing Committee

In a world in which disasters and emergencies are proliferating both in terms of their complexity and the numbers of people they affect, the need for better organisation and operational coherence is greater now than ever before.

More than eighteen months have passed since the Inter-Agency Standing Committee (IASC) held its first meeting under the chairmanship of Mr. Jan Eliasson, then Emergency Relief Coordinator and UN Under Secretary General for Humanitarian Affairs. In that time, the full potential of the IASC's utility has been increasingly accepted.

As testimony to that fact, the Economic and Social Council in the summer of 1993 and the General Assembly later that year both reaffirmed that the IASC, under the leadership of the Emergency Relief Coordinator, should serve as the primary mechanism for inter-agency coordination on policy issues and on formulating coherent and timely responses to humanitarian emergencies.

Timely and appropriate responses to the afflicted are essential. Allocation of responsibilities cannot depend only on well-established UN agency mandates. It is clear that there are "gaps" in present mandates that leave urgent requirements unmet. Assistance to internally displaced persons is one instance; provision for demining or demobilisation activities are two more.

The systems-wide potential of the IASC is reflected in its composition. Major UN operational agencies are represented, as well as the United Nations itself, through the Department of Humanitarian Affairs. In addition to UN organisations, participants also include representatives of the International Organisation for Migration, the International Committee of the Red Cross, the International Federation of the Red Cross and Red Crescent Societies (the Federation) and, on an ad hoc basis, three of the largest non-governmental organisation consortia, Interaction, the International Council of Voluntary Agencies and the Steering Committee for Humanitarian Response.

At the helm of the IASC is the Emergency Relief Coordinator who is also the UN Under Secretary General for Humanitarian Affairs. Preliminary work to prepare for IASC activities is undertaken by an IASC Working Group that comprises senior officials from each of the participating organisations. The IASC and the IASC Working Group are served by a secretariat, established by the Department of Humanitarian Affairs, called the Inter-Agency Support Unit (IASU). The IASU consists of seconded officials from the major UN operational agencies, the Federation and NGO consortia.

The extent to which the IASC will be able to make a difference to the response capacity of the humanitarian assistance system will depend in large part upon its ability to effectively allocate responsibilities, based upon established expertise and comparative advantages of participating institutions, and to respond coherently to major humanitarian crises. These demands in turn will require agreement on certain core issues; here, it might be worth reviewing some of those that comprise the IASC agenda for 1994:

- Every modern means must be utilised to ensure appropriate and timely responses to humanitarian crises. Hence, appropriate systems for achieving this must be established and put in place.
- Field response and coordination, the heart of effective support to afflicted countries, will require agreement on technical support activities, including rapid deployment of personnel and resources, as well as agreement on coordination between NGOs and other actors involved, for example, in peace-keeping and political affairs.
- Demobilisation and demining are emerging as consistent features of humanitarian operations. Both are complex, often requiring considerable amount of resources, but, to date, there is little consistency about the ways that these matters are handled.
- Resource mobilisation lies at the heart of so many problems confronted by the humanitarian assistance system; for in the final analysis, without the fuel to drive the machine, it is impossible for the machine to work. Here, the IASC, under the Emergency Relief Coordinator, must determine ways to direct the resources of the international community to relieve the plight of the vulnerable.

While this agenda reflects only some of the tasks that have to be addressed by the IASC, it gives some indication both of immediate objectives and the potential of the IASC itself.

■

Training to Reduce Vulnerability and Prevent Tragedy

The Disaster Management Training Programme in 1993 and beyond

The Disaster Management Training Programme (DMTP) is entering its last year of implementation, at least in its present form. What has this somewhat original Programme accomplished since its inception in mid-1990 and what can it still be expected to achieve?

Some say that DMTP's ability to distil and embody disaster management experience in the form of user-friendly training modules has been a particularly important step. Others say that bringing together the multiplicity of actors who are affected by - and can, indeed, influence - the disaster-to-development continuum has been the greatest single achievement. (Helping the field Disaster Management Teams to crystallise is one example of this.) Yet others say that the agreed action plans and the separately-financed projects that the majority of DMTP country workshops has led to, best illustrate the value of the training investment. Still others view DMTP's egalitarian joint management by DHA and UNDP, without rivalry, as a symbol of rationalization and complementarity of which there should be more examples in the UN system.

It is true that as we go to press DMTP has produced a considerable range of training materials in various languages and has run 40 workshops of various kinds, at the country and regional levels, for Resident Co-ordinators and to train new disaster management trainers. Much of this work has been done through seven Regional Collaborating Institutions (RCIs) which have been encouraged or nurtured to take lead roles in implementing DMTP in the disaster-prone parts of the world.

Workshops are conducted in a highly inter-active style and bring together national emergency and planning bodies, the UN system, NGOs, and the donor community in-country. Workshop results to date have produced a spectacular harvest of follow-on activities including new or revised national disaster plans, establishment of disaster management teams, mitigation projects, hazard mapping, vulnerability and risk analysis.

Fifty per cent of the overall number of participants in DMTP events are nationals of developing countries, 20 per cent are from local and international non-governmental organizations, 10 per cent are bilateral donor staff, and 20 per cent are UN-system staff, including 40 experienced UN staff from 6 different agencies who have been specially trained and are used as disaster management trainers. DMTP also initiates research to ensure that lessons learned can be passed on.

In 1993, workshops were held in more than a dozen countries. The Indian workshop was disrupted by floods in the north of the country but went ahead regardless. The Indonesian workshop discussed action in the aftermath of recent natural disaster, while the Chinese meeting was attended by the Secretary General of the country's highest policy-making body, the State Council.

Also in 1993, DMTP received pledges at the Donors Meetings in Geneva and New York in June from the Governments of Germany, Sweden and Switzerland. Part of the funds have paid for the continuation of DMTP's translation activities, which saw Disaster Training Modules issued in English, French, Spanish, Arabic and Farsi.

But none of this happened without challenge

We have learned that the success of field training with multiple partners depends heavily on the commitment of the UN system on the spot and, in particular, on the enthusiastic support of the UN Resident Coordinator which, at the outset at least, has not always been the case. We have also learnt how postponement of workshops can be destructive to the momentum that is needed to succeed. We have also learnt that, as a Programme of this kind develops in volume and complexity, qualities of managerial commitment and enthusiasm must be progressively complemented by rigorous everyday planning and administration.

DMTP's primary goals of professionalising on a global scale the ways in which disaster is planned for and handled intrinsically involves a long-term commitment that calls for continuity and perseverance. The initial DMTP model may have proven its worth but clearly we would be irresponsible not to seek to improve on it - all the more so given the exhortations of the General Assembly, ECOSOC, the UNDP Governing Council and the IDNDR. For this reason, a new project - commonly referred to as Mark II - is being designed.

A main objective of DMTP Mark II will be to generate a critical mass of global exposure to disaster knowledge and skills with a view to reducing further the impact of disaster worldwide. To achieve this, Mark II will target some 100 countries and will widen the circle of institutions that implement DMTP in order to gain yet deeper regional and local commitment to the process and, above all, to build up the capabilities of the developing world to plan for, and adequately cope with, disasters of all kinds.

Mark II is designed as a sustained effort that will start in 1994 and, in phases, run through until the end of the century - coinciding with the IDNDR - as a beacon of excellence and solidarity for the increasingly disaster-prone world. ■

Land Mines: One of the most serious impediment to the resumption of normal life

"Of all the tasks involved in setting a nation on a new road to peace and prosperity, perhaps none has the immediate urgency of mine clearance... No attempt to restore a sense of community and security can succeed without effective land-mine removal." Boutros Boutros-Ghali, Secretary-General of the United Nations in his Report on the Work of the Organisation, September 1993.

Land mines assumed a new importance in 1993 for both the United Nations and individual nations, as countries which have overcome the scourge of war are reminded of the past by the estimated 85 to 100 million mines scattered across the globe.

For the first time in 1993, the UN General Assembly considered mines as a separate topic. Adopting three resolutions on the subject, the General Assembly called for the Secretary General to present a report on the problems caused by anti-personnel mines sometime during 1994. It expressed deep concern at the hundreds of people killed or wounded each week by mines and called for a world-wide moratorium on the expert of land mines. The General Assembly also called for more states to ratify or accede to the 1983 Convention

Photo UNHCR/A. Hollmann

Somali refugees victims of Land Mines.

on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects. The Secretary General plans to convene a conference in 1994 to review the Convention and its Protocols, with special reference to land mines. Of special concern are mines made of wood or plastic, making detection almost impossible, and verification mechanisms for the Convention.

Even in the context of a world-wide ban on export or even production of land mines, their effects will be felt for many years to come. 100 million are currently stockpiled, ready to be used in future conflicts. Huge tracts of productive land in more than 60 countries are already infested, and many of the world's 19 million refugees and 25 million displaced persons are unable to return for fear of death or dismemberment by these hidden killers, many designed to maim rather than kill.

In Angola, some of Africa's most fertile land lies fallow because farmers are afraid to tread on them. In Somalia, returning refugees prefer to sleep in tents rather than enter their booby-trapped homes. In Cambodia, more than 200 people a month are dying or having limbs traumatically amputated by some of the 4 - 7 million land mines sowed across the killing fields.

As well as the human cost, land mines levy a toll on the economy of affected regions. Land vital to farmers for grazing, fuel or crops is left to run wild, and the death or dismemberment of thousands of civilians itself entails a massive loss of productive capacity and the redirection of resources to help victims recover.

Land mines not only disrupt the local population, increasingly they impact on attempts to provide relief. In 1993, six Red Cross and Red Crescent workers were travelling in Somalia when their jeep drove over a mine, killing all of them.

In April, a World Food Program-me plane was shot down over Angola. The pilot managed to bring the plane down safely, but when the crew got out to assess the damage, they stepped on a mine, leaving the engineer dead and the pilot severely injured. Roads must be demined before relief trucks can travel on them, and the disruption of rural economies forces more people than necessary to rely on the aid they bring.

Photo Operation SALAM/J. Mohr

Mine Clearance Training

The painstaking task of mine clearance

The danger posed by land mines is now widely acknowledged, and in many places work is proceeding to clear the land. However, in some countries such as Afghanistan, where mines were released from the air, mine-fields are poorly mapped if at all, and the process is always a slow and dangerous one. Using current technology, it takes a team of 20 trained workers a week to clear a patch of Cambodian jungle the size of two football fields.

In Afghanistan, priority areas amounting to 50 square kilometres of land will take another five years to clear. More than 80 mine clearance workers have already been killed since mine clearance activities began there in 1989. Part of the problem is that technology has not significantly advanced since the 1940s. Electronic devices, probing sticks and trained dogs are still the main methods of mine clearance. This delicate process has a highly prohibitive cost: about US $1,000 to remove a mine which costs as little as US $1 to buy.

The UN has recently focused on an integrated approach to mine clearance. This entails not only close coordination between different components of the UN system and with NGOs operating in the field, but also maintaining good relations and the involvement of the affected community. This promotes trust and confidence in the operation and good communication, essential if injuries and deaths are to be kept to a minimum. In many countries, local capacities for mine clearance activities are built up over a long period of time, allowing the eventual transfer of responsibility to national authorities.

All these efforts will be in vain, however, if land mines continue to be sowed in the world's trouble spots. The only truly effective method of preventing death and injury by land mines is to outlaw their production and use, and this will only happen when widespread knowledge and awareness of the horrors of anti-personnel mines leads to the same public rejection as has ben expressed towards chemical and nuclear weapons. Unless that occurs, all the well-meaning resolutions and conventions will not get very far.

■

(For more information on Land Mines, please, refer to DHA News, Sept./ December 1993.)

SITUATIONS CALLING FOR HUMANITARIAN ASSISTANCE IN 1993

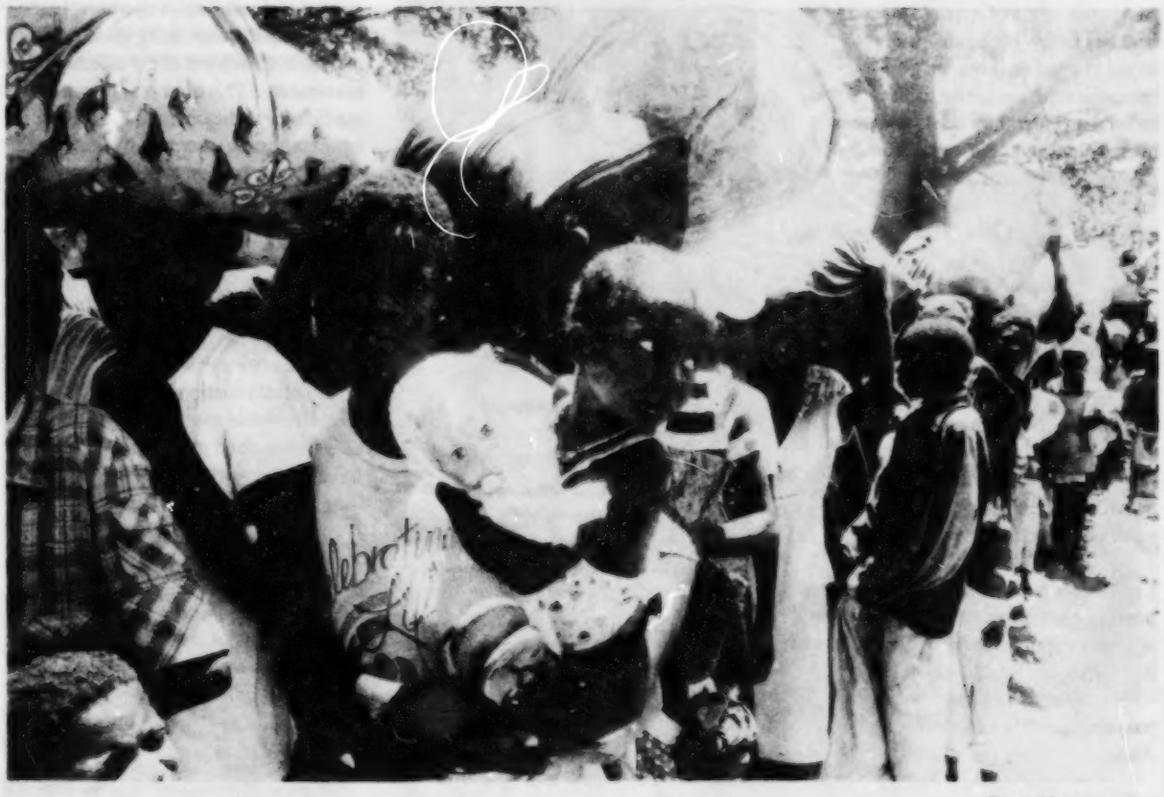

Photo M. Vercruysse

Angola

Afghanistan: Work proceeded despite strife

Afghanistan, a country that promised so much after the Soviet withdrawal in 1989, is still in a very delicate condition. In 1993, fighting between rival factions continued to disrupt aid efforts, especially to Kabul, the capital, and also to damage the city's infrastructure, which had survived most of the Soviet occupation. The millions of landmines scattered around the countryside, often with no record or plan, remain as reminders of the long war and obstacles to peaceful recovery. Despite the hostilities which tore at the country, UN relief efforts in 1993 continued to reach most regions, and even Kabul received a limited amount of aid.

Photo UNICEF/Isaac

Afghan boy learning to use his crutches.

At the beginning of the year, Kabul was in turmoil following the outbreak of intense fighting in December 1992 between two Government factions. On January 1, the focus on humanitarian assistance under the guidance of DHA was reflected in the transfer of in-country control to the UN Office for the Coordination of Humanitarian Assistance to Afghanistan (UNOCHA).

Later that month, the Consolidated Appeal for Emergency Humanitarian Assistance to Afghanistan was launched, covering the first nine months of the year. Of the US$ 197.7 million needed, US$ 59.6 million was already available and another US$ 47 million was contributed during the appeal period. Although the appeal target was revised downwards in June to reflect the decreased number of returnees expected, there was still a shortfall of more than US$ 55 million.

Between January and May, the fighting in Kabul restricted the amount of aid reaching the city. UN international staff withdrew and only flew in for one-day missions to deliver and monitor humanitarian assistance. After the fighting abated, the security of relief convoys remained a concern but, in May convoys from Peshawar were able to carry food, medicines and other essential supplies to Kabul.

Following the murder of three UN staff, a Dutch national in Jalalabad in February and a deterioration of the security situation in Kandahar, all international staff were withdrawn temporarily from both provinces, although local staff kept offices open and assistance programmes remained in force. In other areas of the country, where conditions were calm, distribution of assistance remained in force. However, the collapse of central and provincial governments in many areas and the destruction of basic infrastructure in many parts of the country placed severe constraints on the ability of UN agencies to meet the pressing needs of the people.

Despite not reaching distribution targets, the World Food Programme (WFP) managed to distribute more than 60,000 metric tonnes of food within Afghanistan during 1993. WFP's food-for-work programmes enabled the repair and maintenance of irrigation canals, rural roads and public buildings such as schools, hospitals and mosques.

One programme which did manage to proceed despite the security situation and a constricted supply of funds was the

mine clearance programme. UNOCHA, working with and funding NGOs employing 2,500 people and 40 dog teams, has managed to clear more than 70,000 mines from 30 square kilometres of land since 1990. In the first nine months of 1993 alone, more than seven square kilometres were cleared, but funds for the continuation of the programme are limited. At the present rate, it will take another five years to clear the remaining priority areas, but efforts are underway to increase the mine-clearance capacity. To achieve this goal, the cooperation of donors is extremely important.

The continued existence of mines has been one factor influencing the number of refugees who have returned to Afghanistan. At the beginning of 1993, 2 million returnees were expected during the year, but in fact less than a third of this number repatriated. Of those who did repatriate, about 85 per cent took advantage of assistance grants offered by the UN. About 400,000 refugees from Iran received an assistance grant of US $25 and 50 kilogrammes of wheat, as well as one tarpaulin per family. IOM also provided transport or subsidies to more than 100,000 refugees from both Pakistan and Iran. During 1993, UNHCR assisted in the establishment of three additional border exit stations.

Refugees returning from Pakistan were able to take advantage of the Repatriation Assistance Grant. This programme allows family heads to exchange their rations books for a repatriation allowance of 3,300 rupees (about US$ 110) and 300 kilogrammes of wheat. UNHCR has also begun distributing plastic sheets, one for each returning family as they crossed the border into Afghanistan. About 170,000 people returned from Pakistan during 1993.

■

Angola: A country's potential destroyed by conflict

In September of 1992, Angola was a country of hope, conducting the first democratic elections in its history. After sixteen years of bitter warfare and economic stagnation, there was reason to expect that reconciliation between the major parties in the conflict would permit conditions in which Angola's rich mineral, agricultural and human resources would finally begin to be developed.

The United Nations, which had monitored the conduct and verified the fairness of these elections, was preparing to provide the technical and financial assistance which would hasten the development process. These plans were destroyed by the resumption of hostilities in the aftermath of the elections. The level of fighting and human suffering during the renewed conflict exceeded anything seen in the previous sixteen years.

The civil strife in Angola has devastated its population, caused thousands of deaths and injuries, massive internal displacement, destitution of millions of Angolans, material deprivation, psychological trauma and the collapse of social and economic systems.

To ensure a coordinated response to the crisis, the United Nations Humanitarian Assistance Coordination Unit (UCAH) was established by DHA in the spring of 1993. The first major task undertaken by UCAH was the preparation of a Consolidated Inter-Agency Emergency Appeal to mobilize resources for the most severely affected populations.

Photo M. Vercruysse

In developing the appeal, a process of inter-agency consultation was undertaken, and resulted in the development of projects in nine priority relief sectors (including food aid, shelter, health and nutrition). The outcome was a comprehensive strategy for facing the humanitarian emergency precipitated by the renewal of hostilities.

The overall requirements are immense. Nearly 3.3 million Angolans still need humanitarian assistance. UN and NGO capacity is limited by resource constraints, and a large percentage of the identified needs are not yet being met, particularly in critical non-food sectors. Additional resources are urgently required to continue expanding all humanitarian operations.

During most of 1993, the main issues affecting emergency relief programmes were access and security. The period up to October 1993 was characterized by intense fighting throughout most of the country, a series of grave security incidents bringing death and injury to relief workers and difficult negotiations on delivery plans and security guarantees. The result was a stop-and-go pattern of deliveries, and many locations, especially besieged cities such as Kuito, Huambo, Malanje and Menongue remained inaccessible for months at a time.

From May to August, fighting intensified in some parts of the densely populated provinces of Huambo, Bie and Benguela. Relief agencies experienced repeated set-backs in their efforts to enter critical areas. Humanitarian conditions deteriorated daily, especially in besieged cities, and an unknown number of people died either as a direct result of the conflict or through starvation or related diseases. In Kuito alone, where some of the fiercest fighting occurred, 25,000 people are said to have died in 1993.

The decreased level of fighting since October and the cooperation of the Government of Angola and officials of the rebel UNITA movement has allowed new routes of access to be opened and given scope for a nationwide humanitarian assistance programme.

Photo M. Vercruysse

More international NGOs are working in Angola than ever before.

The work cut out for UCAH, and the international relief effort generally, remains considerable. Conditions in much of Angola remain desperate despite the improvements in access. In some cases, the first effect of improved access has been to clearly illustrate the magnitude of the job ahead. Assessments of the city of Malanje, which had been under siege for most of 1993, put the number of orphans in that northeastern provincial capital at more than 21,000. Land mines, as well, are a formidable problem, turning everyday tasks into deadly endeavours and seriously hampering relief activities.

In February 1994, DHA issued an Update to the UN Inter-Agency Consolidated Appeal for Angola. As well as addressing the need for an increased flow of emergency aid materials, the Appeal Update analyses the ramifications of the evolving peace process for humanitarian assistance activities, including issues relating to the demobilization of military personnel, reintegration of displaced persons and demining. The international community must demonstrate its commitment to assist Angola through what is certain to be a difficult period of transition, and not disengage once peace returns to this country which has experienced such intense suffering over the past two decades. ■

Burundi: Coup attempt led to ethnic violence in a fragile country

On October 21, the first democratically elected President of Burundi and a number of high-level Government officials were murdered in the throes of a coup attempt. The motives of the coup-plotters remain unclear. Whatever their goal, their actions have thrust Burundi into the country's worst episode of ethnic violence this century. Tens of thousands from both of Burundi's primary ethnic groups were murdered during wave after wave of killings and reprisals that followed the failed coup.

700,000 refugees poured across borders into Rwanda, Tanzania and Zaire; hundreds of thousands left their homes and grouped at ad hoc settlements in search of protection, preferring internal displacement to the possibility of being a victim of post coup brutality; close to 200,000 of these internally displaced persons simply made themselves disappear, becoming the *dispersés* - avoiding even camps for the displaced, so frightened were they of being found and killed.

The humanitarian fallout from a catastrophe of this magnitude has been immense. The killings, destruction, and rapid and spontaneous population movements that followed the events of 21 October simply overwhelmed existing capacity in the small and densely populated country. The result was an environment characterized by meagre food supplies, inadequate shelter, poor health and sanitary conditions, fear and anxiety. The level of destruction was such that evacuations, assessments and, later, provision of relief supplies could only be carried out by a helicopter, provided by the UN.

Immediately following the failed coup attempt, a DHA mission was dispatched to Burundi, at the request of the UN Resident Coordinator, to make a preliminary assessment of the situation and to determine an appropriate course of action. After consultations between the DHA mission, DHA headquarters, Representatives of UN Agencies and the donor community in Burundi, the decision was taken to put together an Emergency Interim Appeal for resources to meet the emergency humanitarian needs of Burundi's affected population. In early November, the Secretary General decided to appoint a Special Representative to Burundi in order to assist the Government and the Organisation of African Unity in their efforts to restore the rule of constitutional law and democratic institutions. The Special Representative began his assignment of 25 November.

On 15 November, the Interim Appeal was launched. The US $9.5 million dollar strategy was programmed for three months and was developed with the aim of delivering humanitarian assistance to those displaced within Burundi. The needs of those who fled to the three principal countries of asylum were administered to by UNHCR together with other UN agencies, NGOs and the ICRC. The launch of the Interim Appeal coincided with the placement by DHA of an Emergency Coordinator within the office of the UN Resident Coordinator.

In the months following the coup, the political situation has stabilized somewhat and many of those who fled have returned to their homes. However, most of those initially identified as "affected" by the crisis remain internally displaced or refugees, while some of those who have come back, often intending to participate in the new planting cycle, returned to find farms in ruins and tools and equipment in short supply.

Although steps have been taken to provide food aid and tools to a portion of the affected population, serious difficulties remain to be overcome. Conditions in the refugee camps have remained extremely difficult as there have been serious problems in food distribution, dysentery and diarrhoeal diseases and overcrowding.

Even with a stabilization of the political climate in Burundi and the return of populations to their places of origin, extensive humanitarian assistance will continue to be required through the first half of 1994. A DHA mission travelled to Burundi in February to work with UN agencies and non-governmental organizations to determine essential needs and integrate these within the framework of a consolidated emergency appeal which should be launched by the beginning of March. ■

Ethiopia: Five million in need during a "normal" year

Despite a record harvest for the 1992/93 growing season, about five million people within Ethiopia required assistance in 1993, with another one and a half million considered vulnerable. 2.2 million of these are internally displaced or refugees from surrounding countries, while the rest are in drought-prone areas or have been the victims of crop pest infestation or economic dislocation caused by war and insecurity in Somalia.

The end of the civil war has allowed a much greater area of land to be cultivated, but a large proportion of this land is extremely marginal. The years of war have devastated Ethiopia's infrastructure, and efforts have been made in the more secure atmosphere to rebuild the health, water and sanitation systems in 1993. Improving the capacity of farmers was also a high priority in 1993, with major appeals for veterinary services, pesticides, fertiliser and irrigation schemes.

Despite widespread efforts during the year to increase the area under cultivation, the 1993/94 harvest is expected to be down on the previous year. Erratic rainfall and hail damaged the prospects in some areas, while the overall level of fertiliser usage fell to 75 per cent of the previous year. As a result, harvests are expected to return to more "normal" levels following the record harvest in 1993. Even following the harvest, 591,000 metric tonnes of food aid were required, and the needs for 1994 could reach as high as one million metric tonnes.

Although the civil war has ended and elections were held in 1992, other problems remain. The northern region, traditionally affected by drought, also suffered from crop pest infestation in 1993, although locusts were not as widespread a problem as in previous years.

Ethiopia suffers from many major health risks, including malaria, cholera, tuberculosis and diarrhoea. Rebuilding health services was a major concern of the WHO during 1993, but less than five per cent of the organisation's 1993 appeal of US$ 10 million was covered by donors. Despite this, the repair of many health facilities was undertaken in conjunction with the Ethiopian government and local contractors.

Ethiopia's refugees: an evolving crisis

Ethiopia's refugee population at the beginning of the year included 395,000 Somalis and 50,000 Kenyans. Fighting in the Sudan pushed more than 40,000 people across the border into Ethiopia during the middle part of the year, but by November conditions in Somalia were considered secure enough to allow Somalis to begin repatriating.

In June, 13,000 Somalis who had taken refuge in the Sudan began to return to their homeland, and on December 16 the long-awaited repatriation of Ethiopians from north-eastern Kenya began. By mid-January, nearly 16,000 had crossed the border, and a further 100,000 are expected to return this year.

Political Reconciliation: hope for the future

The political situation in Ethiopia remained fragile but towards the end of the year hopes for progress improved.

Photo UNHCR/A. Hollmann

Among the most urgent needs of new arrivals are food, water and shelter.

National elections were announced for June 1994, with registration of candidates to be completed by 17 March. A "Peace and Reconciliation" conference was held in Addis Ababa in mid-December, with participants from several opposition parties. The conference ended with a resolution calling for a broad-based transitional government which included all opposition groups.

Since the conference, community meetings have been held to discuss a concept paper on the draft constitution produced by the Transitional Government. Concern has focused on the right of regions to independence or secession from the state of Ethiopia.

The 1993 Consolidated Inter-Agency Appeal for Ethiopia was only 40 per cent covered. While emergency food aid was adequate for the period, the neglect of other sectors is disturbing. Unless greater resources are channelled into rehabilitation and disaster preparedness, the next drought will have results just as dramatic as the one which caught the world's attention in the mid-1980s.

Health services in disarray

Health care facilities in many parts of Ethiopia have been wrecked by war and lack of maintenance. Epidemics need to be controlled and damaged health facilities require urgent attention. In the absence of health care infrastructure, and in the context of successive droughts and the poor nutritional status of many of Ethiopia's people, conditions which need not be fatal instead kill thousands of Ethiopians. Diarrhoea, respiratory infections, malaria, tuberculosis and measles have all taken their toll.

Emergency health interventions have been implemented in conjunction with the regular activities of the Ministry of Health. Long-term planning and intensive rehabilitation of health services is especially important for the control of communicable diseases including AIDS. ■

Iraq: Humanitarian assistance continued in 1993

In 1993, the **UN Inter-Agency Humanitarian Programme in Iraq** has continued to provide humanitarian assistance to vulnerable population groups throughout the country under the new plan set forth in the "United Nations Cooperation Programme in Iraq" (April 1993 -March 1994). UN Agency projects cover all the priority sectors including food, agriculture, shelter and rural integration, health, water supply and education, focusing on relief and rehabilitation activities. The majority of the international NGOs have concentrated their humanitarian activities in the northern Governorates of Iraq.

In terms of requirements, the Programme provided for an initial budget of US $467 million, with urgent priority requirements estimated at some US $212 million. In recognition of specific urgent needs to be addressed during the winter period, the Under-Secretary-General for Humanitarian Affairs issued a funding appeal on 12 September 1993, primarily for heating fuel, food and medicines. As of 31 December 1993, the resources made available, pledged and/or received, amounted to US $200 million, including US $124 million channelled through UN Agencies/programmes, and US $79 million through international NGOs and direct/bilateral programmes.

Photo DHA/G. Putman-Cramer

The IRCU and WFP Offices at Dohuk.

There is a broad consensus amongst the UN Agencies and NGOs active in Iraq to the effect that the Programme is entering a rehabilitation phase. However, despite sustained efforts to shift the focus of the Programme from relief to rehabilitation work, the continuing need to provide food, medicines and kerosene to assist vulnerable groups, has prevailed. In this regard, significant achievements have been made in terms of meeting priority targeted relief requirements of the population, with the full provision of kerosene/heating fuel and food quantities delivered in the northern Governorates, for the winter season, benefiting some 547,233 families. Other commodities were also supplied and delivered, throughout the country, representing some 96,700 metric tons (mainly water and sanitation equipment, agricultural inputs, medicines and medical equipment, educational kits, shelter materials and spare parts.).

Two distinctive features of the Programme are the emphasis placed on programme coordination and security: DHA is entrusted with the coordination of various UN Agencies' projects and activities, both at the field and at headquarters' level. Coordination support is provided by DHA Geneva, through the Special Emergency Programme - Iraq (SEP-IRQ), and, in the field, through the Inter-Agency Relief Coordination Unit (IRCU) in Baghdad (itself supported by sub-offices in the three northern Governorates of Dohuk, Erbil, and Suleimanyah). Also, coordination support for relief convoy operations between Southern Turkey and Northern Iraq is provided by the DHA Convoy Coordination Unit in Silopi, Southern Turkey. Furthermore, central policy support is provided by DHA New York.

A second interesting feature is the mandate entrusted to a Contingent of UN Guards for security (DHA-UNGCI). The security situation in the three northern Governorates has been tense throughout the year, caused in part by violent armed clashes between different political parties and isolated attacks against UN and NGOs personnel and premises. The implementation of the UN Humanitarian Programme in the North is facilitated by the presence of a UN Guards Contingent with a total strength of 300 men, whose operational headquarters are located in Erbil (North). UN Guards are instrumental in protecting UN as well as NGO staff working under the umbrella of the Humanitarian Programme, as well as guarding UN property, warehouses and offices. In 1993, numerous escorts have been conducted for convoys of UN agencies and NGOs. With an increase in terms of incidents occurring in the North, the UN Guards play a valuable role in facilitating the transportation and delivery of relief items to the targeted groups of the population.

One of the most important challenges of the Programme for the year 1994 would consist in promoting further rehabilitation activities country-wide aimed at greater self-reliance amongst the population. To that effect, support will be provided for enhancing agricultural productivity, improving livestock rearing, resettling displaced families within integrated rural rehabilitation schemes; and for basic services including health care, water supply, electricity, heating fuel and basic education. ■

Outside Delta Control

Photo DHA/G. Putman-Cramer

Photo DHA/G. Putman-Cramer

Guards on patrol in Northern Iraq, providing protection to the humanitarian programme (staff offices, wharehouse and convoys).

Kenya: Aid efforts hampered by bandits and continuing drought

Assistance efforts in Kenya during 1993 attempted to make the crossover from short-term relief to drought rehabilitation. However, the continuing drought, ethnic strife and attacks on relief workers have disrupted these efforts.

The drought, which first affected harvests in the 1990/1991 growing season, continued in 1993. Harvests in 1993 were ten per cent lower than average, and the prospects for 1994 are even worse. The October WFP/FAO assessment mission estimated that only 1.75 million metric tonnes would be harvested this year, leaving a total cereal shortfall of more than 1.4 million metric tonnes. To make matters worse, up to 70 per cent of animal stocks were lost during the earlier years of the drought, hampering attempts to rebuild animal stocks.

Following a report on the situation of internally displaced people in northern Kenya, a UNDP programme was formulated with activities ranging from transitional relief, envisaged to last one year, to a rehabilitation and reconstruction programme lasting up to five years. More than US$ 20 million of funding will be required for the initial two years, to be mobilized locally by UNDP Nairobi, and internationally through DHA.

The UNICEF compound in Wajir in the northeast was attacked in the darkness of the morning of 3 September, resulting in the death of a pilot and the wounding of another relief worker, prompting staff evacuation and a suspension of relief activities in that district.

Numerous relief vehicles were stopped by bandits and their passengers robbed. On 8 September, a Federation vehicle was held up. Later in the month a WFP vehicle was hijacked and its Kenyan driver kidnapped and in another incident a CARE vehicle was also hijacked.

Photo UNICEF/B. Press

Assistance has continued wherever security conditions allowed to an estimated 800,000 drought-affected Kenyans and 400,000 refugees. The number of refugees declined in the middle part of the year to 380,000, but by October had reached 418,000 again, despite an agreement with the Ethiopian government in July which allowed repatriation to begin of the more than 80,000 Ethiopian refugees in Kenya.

According to a mid-year survey, supplementary feeding programmes had reduced levels of malnutrition to below ten per cent in some districts in the north east, but in others the figure remained above 20 per cent. Other activities in Kenya focused on the refurnishment of hospitals and medical facilities, sinking bores to provide reliable water supplies for villages and restocking animal herds decimated by the drought. Although much work was done in 1993, the prospects for 1994 remain bleak. ■

Lebanon: Emergency reconstruction in the South

The reconstruction efforts taking place throughout Lebanon suffered a setback in late July 1993 when a wide-ranging Israeli attack on the south damaged or destroyed thousands of homes.

From 8-13 August a mission, led by DHA and including participants from WHO, UNICEF, WFP, UNDP, UNHCR, FAO and HABITAT, visited the affected region to assess the needs and plan a response. Mr. Jan Eliasson, then Under-Secretary-General for Humanitarian Affairs, also visited the Presidents of Lebanon, the Council of Ministers and the Lebanese General Assembly.

Following the mission, an appeal was launched on 20 August for US $28,745,200 to meet emergency food, agriculture, housing, health, sanitation and education needs. To enable the immediate start of emergency housing reconstruction, DHA released US $5 million from the Central Emergency Fund. The project funded by these funds focuses on ten of the most seriously affected villages, building 400 new houses and rebuilding 250 of those partially destroyed.

The approaching winter made the need for action all the more urgent and two NGOs with large in-country experience (Save the Children and the Young Men's Christian Association) were subcontracted to manage the project. Because of the massive destruction, only emergency needs were met in the initial stage, leaving major rebuilding for a later stage.

Beneficiaries were selected on the basis of socio-economic criteria and the degree of damage done to their dwellings.

The project has involved large numbers of local builders and about 20 Lebanese professionals, building a local capacity for emergency housing management which could be mobilised for similar projects in the future. The project has benefitted from the support of the communities concerned, who demonstrated a willingness to cooperate in what was seen as a pressing priority, the rebuilding of their villages. As well as the targeted 650 family dwellings, the project will have rebuilt 25 common buildings, such as schools, dispensaries and community houses by the time it ends in June 1994. ■

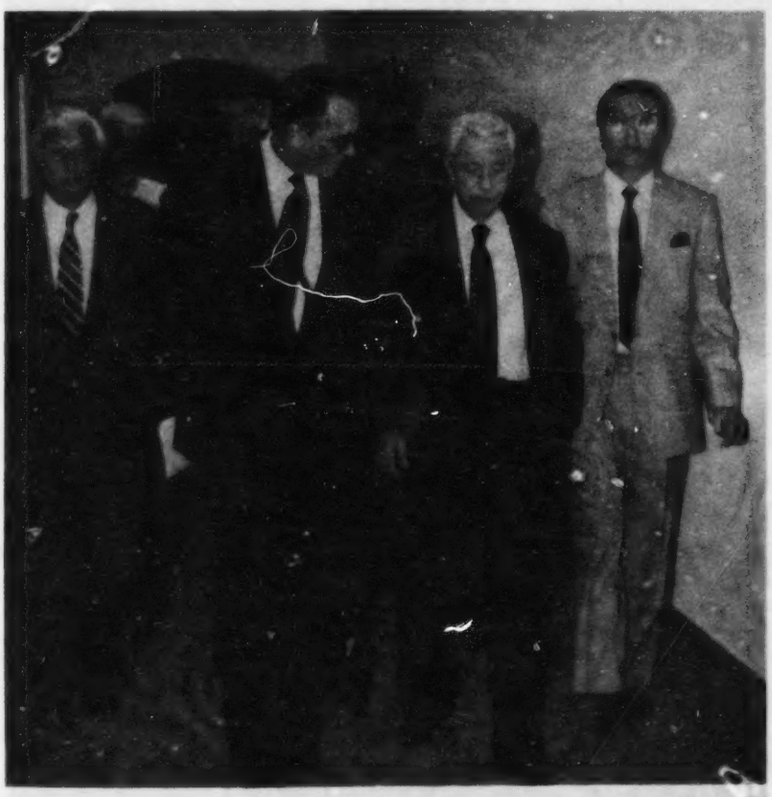

Photo DHA

From left to right: The UN Coordinator, Mr. H. van der Kloet; former Under-Secretary-General of Humanitarians Affairs, Mr. J. Eliasson; H.E. E. Hraoui, President of the Republic of Lebanon; and Mr. R. Souria, Chief of the Relief Coordination Branch.

Liberia: One of Africa's most violent civil wars

Liberia, torn since 1990 by a violent, multi-factional civil war, finally achieved some chance for lasting stability in 1993. The Cotonou Peace Accord, signed on 25 July, offers a promise for political and military conciliation which will allow the resumption of normal social and economic conditions in Liberia. The parties to the conflict have bound themselves to allow the delivery of humanitarian aid and the return of internally displaced and refugees to their country of origin.

Since it will take time for the Agreement to result in real improvements, it will be necessary to continue the current range of activities as well as introduce new programmes which will promote the reintegration of combatants and refugees into Liberian society. In the past, the international community has been forthcoming in the provision of food aid (more than 90 per cent of requirements since 1990 have been covered) but less generous in other areas. Only half of the appeals for education and child assistance activities have been covered.

Health and medical conditions remained precarious through most of the country in 1993. Following resumed fighting in October 1992, the situation in the capital Monrovia, which had been stabilised, deteriorated again under the pressure of a large influx of refugees. Tuberculosis, leprosy, bilharzia, anaemia and sexually transmitted diseases (STDs) are all of great concern to health agencies.

One of the saddest aspects of the Liberian war has been the use of child combatants. Although this practice is strictly forbidden by the Geneva Conventions, an estimated 6,000 children were pressed into service during the war by the various factions. The rehabilitation of these child soldiers is imperative, as children are the most vulnerable segment of the population. More than half of the children under arms are believed to be suffering from Post-Traumatic Stress Disorder (PTSD).

In late 1993, a programme to begin rehabilitating child soldiers was outlined in the Consolidated Inter-Agency Appeal for Liberia. This programme involves a six-month residential programme for 900 of the most highly traumatised children and a shorter programme for those less seriously effected or who cannot be immediately reunited with their families. However, without donor support, the outlook for these young soldiers is bleak. ■

Photo UNHCR/J. Crisp

Refugees from Liberia

Mozambique: Twin roles of Peace-Making and Rehabilitation

The Mozambican Peace Agreement of October 1992 laid down two objectives for international humanitarian assistance. In the first instance it was to serve as an instrument of reconciliation, providing an ever-widening web of contacts to bridge the rift which the long war had deepened, dividing the people of Mozambique and creating islands of poverty and deprivation. The second objective was to assist the return of people displaced by war and hunger, whether they had fled to neighbouring countries or other parts of Mozambique.

In the first full year of peace, humanitarian assistance indeed played a key role in the two areas of peace-making and rehabilitation, opening up areas controlled by Renamo to the delivery of food and non-food relief items, clearing the way for the return or refugees and internally displaced people and, perhaps most importantly, helping to establish and cultivate channels of communication between aid agencies, the Government and Renamo.

Building trust and communication with Renamo

Initially hesitant at first, Renamo declared an open door policy in May 1993. Access for relief efforts was difficult at first but has improved significantly. Access to Renamo areas, devastated by the war and in some cases cut off from road and communications

Photo UNHCR/A. Hollmann

Supply of safe drinking water.

with the outside, has now become routine. By the end of October, the UN was aware of 31,000 tons of food and 363,000 non-food items such as blankets and agricultural tools which had been provided to Renamo areas. However, this represents only a part of the total relief effort, since more than 30 agencies, mostly NGOs, are now operating in these regions.

Communication between Renamo and provincial government authorities is steadily improving. Tripartite provincial committees consisting of UN, Government and Renamo have been established to conduct joint needs assessment and coordinate the implementation of assistance.

At the end of the war, an urgent effort was called for to restore services, as far as possible, for agricultural production, health care, water supply and education – so that the inevitable pains of home-coming might be eased for Mozambique's estimated 1.5 million refugees and 4.5 million internally displaced.

Seed for the cultivation of 1.4 million hectares of land has been distributed, and almost six million farm tools arrived in the country by the year's end. These figures represent a massive increase on assistance for 1992, when only one million tools were distributed.

Other priority areas have not proceeded smoothly, however. Up to 100,000 soldiers are to be demobilised in the new peace, but financing of demobilisation has lagged behind other projects. The demobilisation scheme involves training and counselling, and providing them with transport, severance payments, credits and vocational kits. In recent months, donors have recognised the importance of this sector and the reintegration programme has been growing.

Repair and repatriation

Road repair and reconstruction, although limited to the dry season, has proceeded in rural areas, but large-scale work has only just begun. Mine clearance programmes, slow to be implemented, were getting underway by the end of the year. A National Mine Clearance Plan to clear 4,000 miles of roads and set up a mine clearance training centre to train 1,500 nationals had been approved and most of the required funding had been committed.

Photo UNHCR/A. Hollmann

Construction of a new school.

NOGs have played an important role in translating the humanitarian programme into reality. Wells, health centres, classrooms and roads are being reopened across the country at a rate that would not be possible without their assistance. NGOs perform several activities, such as delivering rural health care, in nearly all of Mozambique's 128 districts.

The most encouraging sign in regard to humanitarian assistance is the evidence of its likely decline

The delays in mine clearance and demobilisation of soldiers have been major factors in the slower than expected return of refugees and displaced persons. Many areas of potential return have not been cleared of mines and still contain large numbers of soldiers, considered a threat to personal security, while in some areas support facilities are still very rudimentary.

However, about half a million refugees have already returned, mostly from Malawi, and up to 1.5 million internally displaced people have returned to their former regions of residence. In Angonia District alone, 100,000 refugees from Malawi have been absorbed into the community and returnees have produced impressive agricultural services.

Perhaps the most encouraging sign in regard to humanitarian assistance is the evidence of its likely decline. Increasing attention is being given to medium and long term development programmes, and the conversion of assistance through free food distribution to food for work projects is being examined more closely. However, the aid community and counterpart organisations as a whole still have a long way to go before policies can be implemented that might counteract the prevailing dependency on outside aid.

■

Demobilizing soldiers in Mozambique: From the sword to the plough

Reintegration of demobilized soldiers is a long-term effort

The end of Mozambique's civil war has left the country's 120,000 soldiers at a loose end. A major task for the peace has been to find ways to give 100,000 of these warriors new jobs, to reintegrate them into the community and ensure that the peace will hold.

The process was slow in the first months after the peace accords were signed between the Government and Renamo in October 1992, but most of the 49 assembly points had been approved by the two sides and large-scale demobilisation begun by the end of the year.

The UN Operation in Mozambique Office for Humanitarian Assistance Coordination (UNOHAC) plan has three major parts. Eleven provisional offices of the Commission of Reintegration (CORE) have been established to identify employment opportunities, train soldiers and provide them with credit opportunities and some equipment to allow former soldiers to return to civilian life.

A pilot programme conducted in 1993 with the cooperation of the Government allowed 14,000 soldiers to swap their camouflage outfits and rifles for civilians clothes and kits of seeds and tools. They were transported to the region of their choice and given severance payments.

About half of the demobilised soldiers will return to agricultural pursuits, and are being provided with kits to help them start farming. They will also benefit from the support services for the wider community. Another area which has been identified as holding potential for former soldiers is the rehabilitation of rural services such as roads, wells and health facilities.

Photo UNHCR/A. Hollmann

Refugees from Mozambique, Malawi.

Training and credits to establish self-sufficiency

A fund has been established for vocational and entrepreneurial training. Since the formal sector of Mozambique's economy is extremely restricted, soldiers who pass through these programmes will receive basic kits of tools and equipment to encourage them to become self-employed. An estimated 45,000 soldiers are interested in these schemes, and although it is impossible to accommodate all of these, the target is for 15,000 to benefit from training programmes in the next two years.

One important part of the reintegration programme is the credit scheme established at the end of 1993. Under this scheme, group and individual credits are available to soldiers with economically-sound proposals. Training will be part of the scheme, and the aim is to be able to recover the initial investment to allow the establishment of a revolving fund so that the project can continue beyond the initial phase.

A lesson drawn from the experience of other countries is that **social and economic reintegration of demobilised soldiers is a long-term effort**. The majority of the assistance plans will continue for three years, and the credit scheme is expected to last much longer. ■

Newly Independent States

The living conditions for most people in the former Soviet Republics worsened during 1993, most dramatically in the Caucasus region (Armenia, Azerbaijan and Georgia), where renewed fighting and civil wars have resulted in further displacements, with a total number of some 1.5 million internally displaced and refugees.

Continuing instability in the Central Asian Republic of Tajikistan has also caused tremendous suffering for the affected population.

These four countries have been identified as priorities for DHA and the Inter-Agency Task Force on the NIS, which was set up in early 1993 to provide an inter-agency forum for coordination of UN-led activities in the NIS countries. The focal point for coordination within DHA of NIS activities is the Special Emergency Programme for the Newly Independent States (SEP-NIS), which was established at the end of 1993.

DHA-led Inter-Agency missions will take place in the beginning of 1994 to gather current information on the situations in these four countries and to prepare for the launch of updated Inter-Agency Appeals for the provision of emergency relief and rehabilitation programmes. The updated appeals will follow-up on Appeals launched for these countries during 1993, for which US $104,644,840 was sought and approximately US $46,801,851 provided up to the beginning of January 1994. In the case of the three Caucasus countries, the Updated Inter-Agency Appeals will have a regional approach to coordinate the assistance to these countries. Further to the launching of these Appeals, DHA is planning a workshop during April 1994, to address key issues related to the provision of humanitarian assistance to the Central Asian Republics and the Caucasus. Participants from UN Agencies/ Programmes, donor governments, relevant NGOs and academics/research institutions will be invited to attend. Plans for the workshop should be completed by early March.

Photo MSF/R.Job

After the earthquake, Armenia. Photo DHA

Armenia

The conflict between Armenia and Azerbaijan has already lasted five years. Estimates are that at least 2,500 people have been killed during this conflict, and the economies of both states are in ruins.

Armenia is suffering from a total collapse of its economy due to the conflict in and around Nagorno Karabakh, the blockade by Azerbaijan and the consequences of the devastating 1988 Armenian earthquake. The severe shortages of fuel, electricity and food are expected to be life-threatening for a considerable number of Armenians and, if the situation continues to deteriorate during the winter months, UNHCR and government officials warn that "the local population will be suffering nearly as much as the refugees and displaced population." Without heating, many elderly and newborns are likely to freeze to death in their homes. In an effort to heat houses and apartments, almost all of the trees in and around the capital of Yerevan have been cut down.

Only the most basic foodstuffs are affordable to the majority of the people, who live primarily on a diet of bread and potatoes, occasionally supplemented by meat or green vegetables. The UN Representative recently reported food riots and "indications of growing unrest among the population". More often than not, Yerevan and other cities are without electricity, gas, water and other services.

The civil strife around Armenia's border during 1993 has been devastating for the Armenian people. The civil war in neighbouring Azerbaijan between Armenians from Nagorno Karabakh, and Azeri government troops, has further worsened the situation in Armenia. The fighting in Georgia, particularly the severing of the railway link between the Black Sea coast and the most reliable overland supply route, has led to a serious deterioration in Armenia's economic situation.

Affected population

One of the most difficult questions for humanitarian aid agencies to answer, is how many Armenians should be counted as "vulnerable" or "most needy". To date, UNHCR is targeting assistance to some 140,000 most needy people of Armenia's more than 350,000 refugees and displaced. At the same time, WFP is focusing on 350,000 refugees, pensioners, handicapped, displaced and destitute persons. According to WFP, another 440,000 people are presently being assisted by various organizations, although at "nowhere near adequate" levels. The Government claims that 50 per cent or 1.7 million of the country's population are in need of assistance. This figure includes 500,000 people affected by the earthquake in 1988, who are still not properly housed and are unable to provide for themselves. According to several UN agencies in Armenia, there has been an exodus of wealthy Armenians, leaving for Russia and other destinations, due to deteriorating living conditions. Many families are selling their possessions for hard currency in order to survive the winter.

The cumulative impacts of the continuing crises affecting Armenia, compounded by severe winter shortages, require targeted assistance to a wide range of threatened populations. The UN responded to these needs through an Appeal launched in June 1993, covering the period up to 31 March 1994, in which donor contributions of US $25,531,835 have been requested (US $14,221,766 had been received by the end of December 1993). A DHA-led Inter-Agency mission is planned for Armenia (which will also visit Azerbaijan and Georgia) in February/March 1994 to determine requirements for the period from April through December 1994. An updated Consolidated Inter-Agency Appeal will subsequently be launched, to cover this period.

In light of the virtual collapse of the economy, severe scarcity exists in virtually every sector, including shelter, food, fuel and domestic items. Lack of sanitation and essential electrical and plumbing equipment has resulted in the deterioration of drinking water supplies and the collapse of sewage disposal and other basic sanitation services, which is leading to a rise in the incidence of diseases. Medical supplies and basic medicines are in precariously short supply and the rehabilitation of the public health, social welfare and education sectors must be urgently undertaken.

Displaced persons from Nagorno Karabakh accomodated in a workers' hostel in the town of Barda.

Photo UNHCR/M. Alford

Azerbaijan

The emergency situation in Azerbaijan is a result of many factors which include political instability, economic collapse and the displacement of people due to the loss of 20 per cent of the country's territory in the five year conflict with Armenia. The region concerned is in and around the mainly Armenian populated enclave of Nagorno Karabakh. Armenian forces from Nagorno Karabakh launched several offensives during the summer and autumn of last year, causing an Azeri exodus from south-western regions of Azerbaijan to the centre of the country.

As a result of such large movements of population, UNHCR reports that the number of internally displaced persons and refugees has increased from 560,000 in May 1993 to 940,000 at the end of the year. While the refugees and displaced persons who fled before May 1993 have mostly found accommodation with relatives or in public or municipal buildings, tens of thousands of new-comers are hosted in non-winterized tents or in unfinished buildings. Many have been forced to live on road-sides, with few belongings and meagre, rapidly decreasing food supplies.

The use of many schools and medical facilities for housing displaced people is affecting the Azerbaijani health and education systems. Furthermore, poor sanitation is raising levels of diseases. Since August 1993 the figure of 5,011 cases of Hepatitis A has more than doubled and stands now at more than 12,000 cases in 1993, 60 cases of Diphtheria have been reported and the number is increasing. Furthermore, 65 cases of Poliomyelitis were recently reported, compared to 7 cases in 1992. Inadequate sanitation facilities present a serious problem, particularly in overcrowded camps and other concentrations of newly displaced persons.

The Azeri crisis demands immediate assistance to prevent the further deterioration of conditions for the hundreds of thousands of displaced persons and refugees, who at present constitute 12.7 percent of the total population of Azerbaijan. Due to a limited response to the July 1993 - March 1994 Inter-Agency Consolidated Appeal (out of US $26,569,165 requested from donors, only US $14,301,739 was received by the end of December 1993) only limited efforts could be made to stem the deterioration in the conditions of almost all vulnerable groups. In response to increasingly alarming reports concerning the humanitarian situation in Azerbaijan, a DHA-led Inter-Agency mission will take place in February/ March to obtain first-hand information on the situation and to prepare and launch and updated Inter-Agency Consolidated Appeal.

Urgent attention must be given to shelter, food and domestic items, as well as to activities for safe-guarding the health of children, women and displaced families. Concentrated efforts will need to be made to restore basic public health, social welfare and educational services.

Georgia

The crisis in Georgia is described on pages 13 and 14. This account of an emergency flight is just a snapshot of international relief efforts in 1993.

1 March 1993. An Inter-agency Mission to Georgia is to be carried out by DHA and an appeal goes out for international assistance to help 100,000 people with food and other aid. Arrangements have to be made for an emergency flight from the DHA warehouse in Pisa, with relief supplies not only for the population hit by the economic depression but also for the victims of an earthquake in the small secessionist province of South Ossetia,

north of Tbilisi.

2-22 March 1993. A hunt on the market produces an Ilyushin Il-76 which is chartered for two days later. A number of supplies, specially purchased for the occasion, have been delivered at Pisa. Meanwhile, the various partners in the operation have been mobilized, the funds have started to be transferred, all the administrative formalities have been completed, and the cargo has been taken out of the Pisa warehouse and made ready.

24 March 1993. The plane lands in Pisa. It is almost 3 o'clock in the morning, but the pallets start moving to and fro almost immediately, while the crew goes off for a few hours rest. The freight team is on top of the job and the fork-lifts take turns at the huge rear ramp, which swallows up bales of blankets, packets of plastic sheeting, boxes with tools, winter clothing and shoes. In a few hours about 36 tons are shifted from the tarmac into the hold. Around 2 in the afternoon, the control tower finally gives the go-ahead. A stopover in Russian territory to refuel (there hasn't been a drop of aviation fuel in Tbilisi for several months) means that the journey takes just over eight hours.

25 March 1993. Because of the time difference, it is well past midnight in Tbilisi. Georgia's capital is in darkness because of the curfew, the airport control tower has long since closed, but the two pilots bring the plane down expertly, without a bump. The welcome from the team on duty is very cool; obviously, the team was not told that an emergency flight would be coming in.

The militiamen, in combat uniform and carrying Kalashnikovs, get carried away. A long palaver and then a telephone call to the United Nations Representative in Tbilisi finally clear up the situation, so that everyone can go to bed.

Next morning, there is a short token ceremony alongside the plane and the supplies for Tbilisi are officially handed over by the United Nations Representative, on behalf of DHA and the donor Governments, to the Georgian authorities. Then the unloading starts

Photo DHA/P. Orloff

Over 3,000 beyond the Caucasus range

and lasts all day. The airport has practically no mechanical equipment in working order, so everything has to be unloaded by muscle power. The part of the cargo for South Ossetia is transferred to a State warehouse for the time being.

26 March 1993. After all sorts of incidents (key to the warehouse not to be found anywhere, workers commandeered by the army, officials arriving late, etc.), the four trucks for Tskhinvali, the "capital" of South Ossetia, are ready at last to start off early in the afternoon. Final instructions are issued to the drivers: not more than 50 metres apart, flash your headlights if there is a problem, etc. The people accompanying the convoy take their seats in a minibus up front. The distance (120 km) is covered without any major problems, but is punctuated by two minor breakdowns (fortunately the trucks repaired in a few minutes) and stops at countless checkpoints along the way. Spring-like weather, but the sun brings suffocating heat inside the minibus. After one last stop at the "frontier" between Georgia and South Ossetia, as a demonstration of good faith not only to the militiamen on both sides but also to the Russian buffer force, the convoy arrives in Tskhinvali around 5 p.m. The supplies for the earthquake victims are handed over to the representatives of the Committee of Nationalities, the Council of Refugees and the Coordination Committee for Humanitarian Aid, which will handle the distribution. They are extremely thankful. In their eyes, it is not the quantity or the quality of the assistance that counts, but the fact that the convoy has gotten through.

Tajikistan

The tragedy of Afghanistan in the 1980s threatened to repeat itself some one hundred kilometres further to the north in the 1990s.A power vacuum created by the breakup of the Soviet Union exacerbated centuries-old clan-based rivalries in Tajikistan. After months of unrest, a civil war erupted in May 1992. Between 30,000 and 50,000 people were killed and hundreds of thousands were left homeless during 1992-93, in the poorest Central Asian Republic of the former Soviet Union.

The capital, Dushanbe, has changed hands several times since the 1991 break-up of the Soviet Union. The communist government was overthrown in

Photo MSF/R. Job

Tajikistan, 1993.

September 1992 and replaced by a coalition of Islamic and Democratic parties, but pro-communist forces launched a successful counter-attack three months later. After Dushanbe was recaptured, it was reported that government troops began to purge all opposition sympathizers, causing the refugee exodus. Amnesty International reported at that time that a human rights disaster had gone unnoticed in Tajikistan.

After 19 months of civil war, Tajikistan has only recently returned to relative calm, but continuing clashes along the border with Afghanistan and a series of murders of Russian-speakers in the former Soviet Republic, underscore the volatility of the present situation.

The recent lull in fighting has resulted in a flow of people returning to what remains of their homes. 90 per cent of an estimated population of 500,000 internally displaced persons and refugees have returned over the past months to their places of origin in Tajikistan. Despite this positive development, the returnees face severe shortages, due to the disruption of the local infrastructure. Moreover, the overall economic situation is rapidly deteriorating, affecting large portions of the population and compounding the serious situation already faced by the returnees. Of the present population, more than 100,000 lack proper housing, as at least 17,000 homes have been badly damaged or completely destroyed.

A DHA-led Inter-Agency Mission is scheduled to take place at the beginning of February 1994 to determine requirements for severely affected people, to be assisted by UN-agencies and NGO's. The estimated number of the most needy persons (i.e. returnees, internally displaced and war affected persons), is assessed by WFP to be 500,000. Of this number, more than 420,000 persons have been identified to be of particular concern to UNHCR. The food security of the identified vulnerable population is at serious risk, due to the disruption of the local agriculture. Most of the returnees have virtually no food stocks, no fuel for heating and very limited cash to purchase essential survival items. These returnees are extremely vulnerable to food shortages.

The economic situation and the extremely limited income base of returnees, compounded by devastating floods during 1993, is reflected in the lack of access of the affected populations to medicines and medical facilities. Poor drinking water and environmental sanitation are a catalyst for outbreaks of disease. Diarrhoeal diseases are responsible for the death of one-third of the children in the country annually, and the incidence of both diphtheria and polio has increased.

The DHA-led inter-agency mission to Tajikistan (to include representatives of UNHCR, WFP, UNICEF, FAO, WHO, UNDP, UNESCO and IOM) will seek to include in its programming rehabilitation of basic health and other public services, agriculture as well as vital emergency relief projects. The information gathered will form the basis for an updated Consolidated Inter-Agency Appeal, scheduled to be launched on 15 March 1994.

The crisis in Tajikistan demands concrete and immediate action to prevent the deterioration of current conditions for the hundreds of thousands of returnees, displaced and refugees, but also to contain a situation that could ultimately also destabilize other neighbouring countries.

■

Chernobyl's Legacy

In the early morning of Saturday 26 April 1986 two explosions blew the roof off Unit 4 of the Chernobyl power plant just north of Kiev, in the then Soviet Republic of Ukraine. What followed was the largest short-term release of radioactive materials into the atmosphere ever recorded. The full impact of this completely unprecedented event on the surrounding people and their environment is still unknown.

The immediate effect was to leave vast tracts of red forests burned out, burial grounds for contaminated trucks and helicopters, and the "ghost town" of Pripyat, where time seems to have stopped in April of 1986. In the aftermath, about 300,000 people still live in the contaminated areas. Health problems linked to the explosions and continued environmental contamination include massive incidence of thyroid cancer, leukaemia, in utero brain damage and oral hygiene problems.

The need for a new approach to address the Chernobyl disaster has been recognised. A wealth of new projects have been proposed or are going ahead. Priorities include psychological rehabilitation as well as the registration, diagnosis and treatment of the roughly 800,000 "clean-up" workers. The World Health Organisation (WHO is currently operating five pilot projects in the affected areas, examining and treating tens of thousands of patients a year.

The discussion of the Chernobyl issue in the General Assembly centered to a large extent around the analytical review of all United Nations and regional organizations' activities. The resolution on Strengthening of International Cooperation and Coordination of Efforts to Study, Mitigate and Minimize the Consequences of the Chernobyl Disaster adopted by the General Assembly in December 1993 endorsed the catalytic role of the United Nations in addressing the consequences of the Chernobyl disaster. It also requested the Secretary-General to continue to maintain close ties with the Commission of the European Communities and other relevant organizations.

A few weeks earlier, in November 1993, the second meeting of the ministerial-level Committee for Coordination on Chernobyl succeeded in reaffirming support from Member States for the approach to the problem of alleviating the consequences of the Chernobyl disaster. While no major financial contribution to the Chernobyl programmes of the UN was made, representatives of Member States indicated their renewed interest in addressing this problem in global terms. In view of the modest level of contributions to the UN Trust Fund for Chernobyl new sources of financing are being explored, particularly with respect to private enterprises and an extrabudgetary funding strategy for projects.

The third meeting of this ministerial-level Committee for Coordination on Chernobyl, has been proposed by the Russian Federation to be held in Moscow in April 1994. It is envisaged that the meeting will be expanded to include representatives of the United Nations Task Force for Chernobyl, of major donors, and NGO's active in the area of Chernobyl relief.

Food contamination continues to pose a problem, partly because of the subsequent decline in the diet of those close by the reactor. Fear of meat and vegetables has led to a 25 per cent drop in protein intake and a 30 per cent reduction in carbohydrate intake since the accident. Consumption of fresh fruit is only 16 per cent of its pre-explosion days. To reduce these fears, the Food and Agricultural Organisation (FAO) combined with WHO and the International Atomic Energy Agency (IAEA) work out guidelines for countries in cases of nuclear accidents. Special allowance was made for the long-term nature of many of radiation's effects, and safe levels of contamination were established. The same organisations plan to work together in the future to develop guidelines in any future accidents.

The activities of the organisations in Chernobyl are of interest and concern not only to the people in the radioactive shadow of the reactor, but also to the whole world. In the eight years since Chernobyl's deadly accident, there have been numerous serious accidents in nuclear power stations that are showing their age and, in some cases, widely acknowledged to be too dangerous to operate. Unfortunately, we may need the knowledge being gathered around Chernobyl.

Rwanda: Resources stretched by war and refugees

Photo DHA

In August 1993, the Government of Rwanda and the Rwandese Patriotic Front (RPF) signed a peace treaty to bring an end to Rwanda's civil war which had sporadically disrupted the country since October 1990. The needs of the country were exacerbated by the precarious economic conditions, high population density and fast-declining agricultural output. The influx of Burundese refugees in October stretched the resources of humanitarian agencies even further.

Renewed fighting in February and March 1993 had displaced approximately 600,000 people from the northen regions of the country, bringing the number of displaced to more than 900,000 or 13 per cent of Rwanda's population. This sudden increase in the number of people requiring assistance created problems for agencies, especially in the distribution of food. Most of the displaced were in and around 30 camps, where resources were distressingly inadequate. Many people were malnourished and disease was widespread. Although the international community had been providing food, medicines and other essential items, the scale of the new needs was huge.

Following the signature of a cease-fire between the warring parties on March 7, the United Nations launched a Consolidated Inter-Agency Appeal for Rwanda. The appeal covered the nine months to the end of 1993 and was designed to provide priority assistance to the displaced and other needy people within Rwanda, especially in those areas such as food, nutrition, sanitation and reafforestation which had received less attention from donors.

However, the poor response to the appeal (less than 40 per cent of the US$ 78.5 million required had been donated by the end of the project period) has forced agencies involved to reduce their activities. The ICRC, for example, was temporarily forced to reduce the food ration in October because of a shortage in supplies.

In addition to the internally displaced, who began returning to their homes after the cease-fire, the situation in Rwanda was further complicated by the arrival of about 350,000 refugees from Burundi following the October coup attempt. Many were wounded, and sanitary conditions and water supplies in the border regions were inadequate.

The dry season was especially long in 1993, especially in Rwanda's south and northeast. This has had a severe impact on crops, with the possibility that up to 80 per cent of the next harvest will be lost.

To ensure the effectiveness of the cease-fire, the Security Council mandated the UN Observer Mission Uganda-Rwanda (UNOMUR) to deploy on the Ugandan border to verify that no military assistance was being provided across the border, and to assist the OAU in its peace-keeping efforts. In October, the UN Assistance Mission for Rwanda (UNAMIR) was established to oversee the peace process and withdraw no later than December 1995 following national elections. The UN forces have boosted the prospects for peace but major problems still remain.

Nutritional status of women and children appalling

Even in areas untouched by the war, the nutritional status of women and children in Rwanda is critical. One child in five is born weighing less than 2.5 kilogrammes, more than 30 per cent are at least moderately malnourished, intestinal parasites and micronutrient deficiencies are common. The nutritional status of displaced is considerably worse than that of the wider population. Up to 70 per cent of the children in some camps suffer from stunting, a clear sign of long-term caloric deficiencies. The nutritional programmes of relief agencies, led by CARITAS, are part of a broader strategy combining nutrition with immunisation against measles, control of diarrhoeal diseases, systematic distribution of vitamin A and anti-parasitic drugs, and the provision of clean water and adequate sanitation facilities. An urgent need exists for additional human and material resources to cover all of the needs that have been identified.

Somalia: A country in ruins

In January 1993, Somalia lay in ruins. Two years of civil war followed by factional fighting had created extensive social upheaval, massive population displacement and widespread destruction of the country's infrastructure and services. The breakdown of law and order, coupled with the worst looting and extortion ever experienced by relief operations, prevented relief supplies from reaching the sick and the starving. An estimated two million Somalis remained at great risk and another 800,000 Somalis were living in precarious conditions as refugees in neighbouring countries. As many as 4.5 million Somalis were still in need of some form of relief assistance. We cannot do justice to Somalia in a few pages. Besides, so much has been written, Somalia was so central to UN operations that a short presentation here would seem redundant or inadequate. Following is therefore just a reminder of some key issues in 1993.

Photo MSF

Recognising that the situation in Somalia required an exceptional response, the Security Council, on 3 December 1992, authorised the immediate deployment of US-led humanitarian intervention forces to establish security for the movement and distribution of emergency relief assistance in areas deemed to be most in need. On 26 March 1993, the Security Council approved the second UN operation in Somalia (UNOSOM II) through Resolution 814 which stipulated that the operation's objectives were political reconciliation, economic and social reconstruction and disarmament. The Resolution requested UNOSOM II to "assume responsibility for the consolidation, expansion, and maintenance of a secure environment throughout Somalia." This operation, which just came to an end, was the biggest and most expensive peace-keeping operation in UN history.

A UN Inter-Agency Relief and Rehabilitation Programme, reflecting the agreements reached at the Second Coordination Meeting on Humanitarian Assistance for Somalia held in Addis Ababa from 3 to 5 December 1992, was

Photo MSF

carried out during 1993, as a continuation and review of the 1992 **100-Day Action Programme for Accelerated Assistance to Somalia.** It was agreed that since insecurity persisted in many parts of the country, having a detrimental effect on humanitarian efforts, a series of corrective measures and activities to enhance the peace process, foster economic recovery and generate employment opportunities, had to be put in place. It was also agreed that the participation of Somali representatives in the planning and implementation of the programme was fundamental. Activities were identified by core groups covering the main relief and rehabilitation sectors. Each group consisted of representatives from local and international NGOs, Somali organisations and professionals, women's groups, UN agencies, the ICRC and donors. Regional involvement was sought through UNOSOM field coordinators deployed in the centre, south and north of the country. The priorities which were determined reflected the broad consensus of opinion among the core groups and underscored the aspirations of a society weary of war, anarchy and abject poverty. Even though it was recognised that the programme was ambitious and that all the objectives might not be met in 1993, no time should be lost to help a large number of Somalis ready to begin rebuild their lives and their country.

Food Assistance Delivered in 1993:

Since June 1992 more than 300,000 MT of food aid has been shipped into Somalia, in addition to commercial imports. In 1993, WFP delivered to Somalia a total of around 150,000 MT of various commodities. A significant shift from relief to rehabilitation programmes took place starting in the second quarter of 1993. In the period April-September 1993, the monthly food aid decreased from 35,000 MT of WFP and ICRC food to 7,400 MT by the end of 1993, supplied by WFP. By the end of 1993, only 20 per cent of the food was used for relief. 60 per cent was used in 263 targeted schemes such as food-for-work projects. Other schemes included supplementary feeding, institutional feeding, food as component of salaries, school feeding and resettlement. Through theses programmes, WFP reached some 200,000 direct beneficiaries countrywide. About 20 per cent of theses schemes have been implemented by international NGOs, and the balance by indigenous NGOs and community groups.
In 1993 more than 200,000 children and women were fed through supplementary and therapeutic feeding programmes supported by UNICEF.

In 1993, rates of malnutrition in the worst affected areas, primarily the Baidao-Barbera-Luuq triangle, declined from 40-60 per cent to 11-38. In other regions, the corresponding figure was reduced to single digits. As a consequence, the mortality rate had substantially reduced. In Baidoa the child death rate which stood at 1,679 for the month of October 1992 had been reduced by three-quarters by the end of 1993. However, some one million persons were still below minimum nutritional levels and required a support in the form of shelter, medical care, clothing, cooking utensils and other life-sustaining supplies. An estimated 1.6 million refugees and internally displaced persons required assistance on a priority basis.

By the end of 1993, a number of UN and NGO surveys in a number of areas, in particular Kismayo, parts of Lower and Middle Juba and Bay region, indicated that the hard won gains of 1993 were in danger of being lost. In Kismayo, malnutrition rates in displaced persons rose from 13 per cent in June 1993 to 20 per cent by the end of the year. Food and water shortages were also been reported in Bay region.

Schools and health centers opened in 1993

UNICEF, a number of NGOs as well as UNOSOM and formerly UNITAF forces have been supporting schools countrywide, but the exact number has not yet been recorded by any agency. According to UNESCO, 24 of Mogadishu's 85 public schools have been rehabilitated either by NGOs or the UNOSOM forces. In total, 150 schools are registered by the Education Committee in Mogadishu, which is a local, UNESCO supported body. According to figures compiled by the NGO Consortium, about 400 primary schools are supported by NGOs in Benadir, Middle/Lower Shabelle, Middle/Lower Jubba Gedo, Hiran, Bay, Mudug and Galudud (not including Koranic schools). UNICEF and Save the Children UK also support numerous primary and Koranic schools in the Northeast and Northwest. UNESCO and UNICEF recently conducted training seminars in 33 schools in the Northeast. As a point of comparison, UNESCO compiled pre-war figures showing that the number of schools in Somalia, after reaching a peak of 1,407 in 1980, was down to around 644 primary schools in 1985.

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Southern Africa: Planning reduced the development costs of drought

As drought is a recurring phenomenon, institutional memory is essential to ensure that mistakes are not repeated

During the 1991/1992 growing season, the worst drought of the century hit the countries that constitute the Southern African Development Community (SADC). The magnitude of the production shortfall and the regional nature of the drought necessitated a coordinated approach in order to minimize its effects. As a result, SADC set up regional management structures to combat the crisis, and began to address the fact that massive international assistance would be required since the region could not face the problem armed only with its own resources.

It was at this point that SADC forged a partnership with the newly created United Nations Department of Humanitarian Affairs. The immediate result of this partnership was the Drought Emergency in Southern Africa (DESA) Appeal. Launched in June 1992, the DESA Appeal gave the international community a comprehensive picture of the emergency requirements of the 10 countries of the SADC region. The

Photo UN/FAO

These tribesmen have watched their herds of cattle vanish from starvation as pastures gradually turned into wastelands.

DESA appeal requested 1.9 million MTs of target food aid for free distribution to the affected populations and 2.5 million MTs of programme food aid, to assist those countries who were not able to import sufficient food through normal channels.

Although the DESA appeal period officially ended on 31 May 1993, UN/SADC collaboration continues. Thanks to the good rains and a number of recovery programmes put in place during the 1992/1993 growing season, relief programmes are over in most of the SADC countries and the focus has switched to drought preparedness. To this end SADC and the DESA unit of DHA agreed last year on a number of activities that would follow the drought relief programme. The first of these was country assessments - analyses of the management of the 1991/1992 drought, with an eye to drawing lessons for the future. As drought is a recurring phenomenon, development of institutional memory is essential to ensure that mistakes are not repeated and successful elements are maintained. It was with this in mind that assessments of response to the drought emergency in each of the SADC countries, with the exception of Angola, were recently undertaken.

This theme of developing institutional memory was also at play in the convening of a DESA workshop, held in September 1993 in Harare, Zimbabwe. The workshop brought together key actors from the SADC Governments, representatives of the donor community, NGOs and the United Nations. Much of the discussion during the workshop focused on the five key aspects of drought management: drought preparedness, short-term drought relief, long-term drought mitigation, drought and health policy and institutions needed for management of drought relief.

During the course of the workshop, it was agreed that a number of issues were seen to be best handled at the national level. To that end, a series of national workshops were organized in the SADC countries (again with the exception of Angola), with technical support coming from the University of Oxford's Food Studies Group. Four of these drought management workshops have already been held (in Lesotho, Malawi, Namibia and Zambia), with active DHA presence at the Malawi and Zambia conferences in the form of the DHA-SADC Liaison Officer. It is hoped that the remaining five countries will hold their national workshops by April.

Realising that the area was ill prepared for the 1991/1992 drought and that drought is endemic in the region, it is imperative that the Southern African countries incorporate considerations of drought into their overall economic development modelling activities. Drought should not be treated as a one-off disaster. It is a recurring phenomenon, one that can greatly reduce or nullify hard-earned development gains. The 1991/1992 drought served to again underscore how vulnerable the economies of SADC member states are to variations in rainfall given their heavy reliance on rainfed agriculture and livestock production. The realization of this approach in economic planning, in the form of programmes and implementation plans, is the hoped for outcome of the national workshops.

One of the themes of the workshops to date has been the relationship between underdevelopment and the vulnerability of the SADC economies to drought. These findings obviously require a consideration of the relief to development continuum as it applies to drought and the SADC countries. A number of NGOs have stepped to the fore on this issue.

The International Federation of Red Cross and Red Crescent Societies, for example, has been implementing a recovery programme in six of the SADC countries (and South Africa). In Zimbabwe, the Federation is working with rural communities in order to reduce their vulnerability to drought, as well as undertaking a training programme for NGOs in order to enhance their capacity to undertake relief programmes. In Zambia, NGOs are continuing with recovery programmes begun during the 1992/1993 growing season under the umbrella of the Programme Against Malnutrition (PAM), a general secretariat established to coordinate NGOs. It is hoped that with donor support other SADC countries will be able to continue with recovery programmes initiated during 1992/1993.

The SADC countries are not out of the woods yet, however. Current agro-meteorological reports from the region indicate that rains have not been reliable in the current growing season and that this unreliability will continue for the coming months. Given unreliable rainfall patterns in most areas in the region, cereal output is likely to be below that of last year. Fortunately, stocks carried forward in some SADC countries will make massive imports of food unnecessary.

DHA is particularly suited to remain active in the region, given its mandate to assist states in their transition from emergency relief to development. The convening of several workshops by the UNDP/DHA Disaster Management Training Programme in Southern Africa in 1994 will help ensure that the momentum achieved in the face of the drought emergency is not lost and that emergency preparedness and management capacities are strengthened.

The success of the Drought Emergency Programme and the DHA-SADC partnership proved that a timely well-coordinated response to drought can indeed prevent tragedy. It must be noted, however, that more and more, the resources of affected governments and donors are being channelled to meet immediate disaster relief priorities. It is equally important that support be provided to activities that serve as the recovery "bridge" to development activities and to assess how the mitigation, preparedness and emergency response needs of the region are best addressed. In this way, we will enhance not only the food security of Southern Africa but its development prospects as well. ■

Sudan: Relief in the midst of uncertainty

1993 began with the hope of better access for relief services to affected areas in the Sudan. In January, the UN organised a meeting between the government and six international NGOs operating in the Sudan, which lead to an agreement on principles of operation, furthering cooperation in humanitarian relief and rehabilitation assistance. A separate agreement had been concluded in December 1992 between the government, the Sudan People's Liberation Army (SPLA) and the UN. This resulted in expanded access through the opening of new river, rail and road corridors, greatly enhancing the physical reach of Operation Lifeline Sudan (OLS) and the number of people the relief effort could help. In February, the first barges travelled to Juba in the south, and in May the first UN train since the beginning of the civil war travelled 700 kilometres across the country to Wau in the south-east. UN flights were also able to land at an increased number of airfields. However, looting took place twice on the barge corridor and several times along the railway.

The UN has continued to attempt to open land corridors, since this would reduce transport costs, including the demining of the road between Narus and Kapoeta in the south, but no agreement had been reached by the end of the year.

Peace talks in Nigeria between the Sudanese government and representatives of the two main SPLA factions broke up without agreement in July and were not restarted. Several separate attempts to reconcile the two factions of the SPLA also ended without result. The fighting between the two factions intensified in August and was a major factor in the displacement of hundreds of thousands of people in the south who moved north or towards the border with Zaire and Uganda. The fighting forced the UN and other OLS partners to repeatedly abandon relief efforts and fly staff to the most-affected areas on a daily basis.

Photo UNHCR/B. Press

Also in August, the government began a campaign in the heavily-populated south, backing up ground troops with aerial bombardment. In many cases, OLS relief activities had to be halted, and more than 100,000 civilians fled into Uganda or western Sudan. The continued campaign has had a major impact on the ability of the UN to deliver assistance to the large number of displaced people in the conflict zones.

Despite the disruptions caused by renewed fighting, the United Nations and its partners in relief were able in 1993 to more than double the amount of food aid supplied to Sudan as compared to 1992. The improved access by way of rail air and river routes also permitted a significant quantity of non-food aid to be distributed, including medical, water and sanitation supplies, as well as seeds, tools and veterinary services, essential to the development of local capacity to overcome adversity. ■

Former Yugoslavia: Without peace no solution

In the final analysis, the lasting solution to this humanitarian crisis is peace and reconciliation. Humanitarian aid is not a substitute for peace, but it can mitigate the cruel effects of war. Until firms steps are taken in the direction of peace, we have no recourse but to continue all possible efforts to save the lives of children, women and men now placed at risk by the ongoing conflict.*

* Mrs S. Ogata, High Commissioner for Refugees (UNHCR) and Mr. J. Eliasson, former USG for Humanitarian Affairs (DHA), preface to the seventh Consolidated UN Inter Agency-Appeal for the humanitarian operation in the former Yugoslavia, 8 October 1993.

Photo UNHCR/A. Hollmann

Schools, gymnasiums and hostels have been turned into collective centres to accomodate the displaced.

During 1993, humanitarian situation in many parts of the former Yugoslavia continued to be desperate, and, in many instances, worsened. This tragic situation reflected the persistent difficulties posed by the unwillingness of combatants to allow humanitarian access to affected populations as was the case in Bosnia-Herzegovina. The steady economic decline as a result of war and sanctions heavily affected the situation of refugees and displaced persons in the other Republics.

With the UNHCR as the lead agency for humanitarian assistance in the republics of former Yugoslavia, the international community rallied to provide essential humanitarian assistance in the form of food, shelter and medical services to 2.7 million people. Undoubtedly, these joined efforts have saved an untold

number of lives and averted a major disaster.

In March 1993, a United Nations Revised Inter-Agency Consolidated Appeal for former Yugoslavia outlined that while the principal concern remained continued emergency, the emphasis should be placed on assistance to war victims, particularly the most vulnerable ones, women and children, and on efforts at rehabilitation. It was clear that in this massive effort, the UN agencies could at best provide a small proportion of the republics' rehabilitation needs and that regardless of the unwavering humanitarian commitment, there could be no substitue to peace. Without a just and durable peace, there would be no lasting solution to the grave crisis facing the people of the former Yugoslavia.

Emergency needs for a growing number of people in many parts of the former Yugoslavia increased by 25 per cent during the first three months of 1993. In Bosnia-Herzegovina and Croatia, in particular, the numbers increased dramatically from 2,350,000 to 3,080,000. In parts of these two republics, malnutrition was evident amongst the adult population, as well as children. However, throughout the former Yugoslavia, the lack of affordable food had become, in varying degrees, an extremely serious problem. Social service systems were under growing strain. Existing health systems in the affected regions were unable to provide a level of even basic assistance. In many locations there was virtually no capacity to deal with new concerns growing out of the war - in particular treatment of rape, torture and conflict. Many children had missed their scheduled vaccinations and, therefore, were unprotected against growing threats from diseases such as tuberculosis and measles. Serious shortages of drugs persisted in many health centres and hospitals, refugee centres and institutions assisting the mentally retarded and the disabled.

Since the beginning of the crisis in the former Yugoslavia, the generosity of local people has enabled many internally displaced people and refugees to survive. The UN appeal provided for a broad range of support to the traumatised victims of the conflict. IOM provided access to rehabilitative treatment abroad for victims of the conflict. Psycho-social support for women and children, treatment of post-traumatic stress disorders and social service outreach systems all reflected aspects of vitally needed services to be provided by UNHCR, UNICEF, WHO and UNDP. There was also a continuing need to assist ex-detainees and their family members to benefit from offers of temporary or permanent protection in Third World countries. Through a tri-partite agreement with UNHCR and ICRC, IOM served as the focal point for the Family Reunification Programme, as well as arranging and assisting in all such related transportation needs.

Photo UNHCR/A. Holmann

At the same time, the 1993 appeal reflected the belief and commitment to assisting the people of former Yugoslavia to return to a semblance of normalcy through urgent recovery activities which might set the stage for the rehabilitation of the economy. Reflecting a commitment to post-emergency recovery, the appeal included activities in small-scale agriculture, income generation and post-emergency shelters which could be initiated on a pilot basis, involving FAO, UNDP and UNIDO. The Department of Humanitarian Affairs continued to assist the Secretary General in following developments regarding the humanitarian situation in the former Yugoslavia and bringing relevant matters to the attention of the Security Council.

During October 1993, the humanitarian operation faced the all too familiar problems of continued fighting, "ethnic cleansing", deliberate targeting of personnel, and denial of access for vital relief supplies. There was however one significant change: the weather had turned. The much colder weather exarcebated public anxiety, with large sections of the population already faced with chronic food and fuel shortages, and provoked widespread demonstrations.

Will 1994 be the year of peace, reconciliation and hope for all the people of the former-Yugoslavia ? ■

Zaire: Ethnic violence followed social and economic decline

Photo UNHCR/M. Brown

Since Zaire abandoned its attempts at the World Bank and IMF-sponsored economic reform in 1990, social and economic conditions in the country have deteriorated to the point where the crisis in Zaire is considered one of the most extreme in Africa. Hyperinflation, an extremely low GNP (below US $200 per person), an under-five mortality rate of one in five, child malnutrition of 25 per cent and secondary school enrolment rate of only 16 per cent are just some of the indicators of Zaire's crisis.

In January 1993, destructive riots further crippled the country's economic capacity, causing damage estimated at US $2 billion. Civil and ethnic violence, combined with unrest in the armed forces, has led to violent confrontations and displaced up to one million people. In August, the Secretary General of the United Nations dispatched an assessment mission to Zaire on the request of President Mobuto Sese Seko. The outcome of that mission was an appeal for US $84.2 million to cover the activities of the United Nations and the International Organisation for Migration (IOM) up to June 1994.

The major concern of the UN/IOM activities is to resettle the thousands of people displaced by ethnic violence. Shaba Province in the south has been the site of conflict since August 1992, and more than 800,000 people fled the province to return to their ancestral homelands in East and West Kasai to the north. A further 135,000 are concentrated in camps in Shaba, with little prospect of returning to their homes. Although not wishing to be a party to ethnic cleansing, the UN and IOM have seen little alternative but to transport these people to return to their ethnic homelands.

Most of those forced from their homes were skilled workers, or administrative and managerial staff, and their return to rural Kasai has imposed huge strains on the support services of these regions. The other major priority of humanitarian workers in the region has been to ensure adequate conditions in the areas of destination of the displaced, in the form of transit camps and the accompanying medical, sanitation and security services.

Ethnic violence erupted in March in North Kivu, a province in the east of the country. An estimated 3,000 people were killed and 225,000 displaced in this mountainous region. The accompanying breakdown of law and order has affected about 20 per cent of the province's population. The condition of children is extremely precarious, with skyrocketing death rates and diseases related to food deficiencies such as measles and diarrhoea. Camps that have been established are forced to cope with extreme water shortages and abominable sanitation conditions, as well as the rising price of foodstuffs caused by the destruction of crops, animals and seed stocks in the surrounding areas.

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Involvement of Humanitarian Organizations in 1993

UNICEF: Focus on Emergency Situations

The alarming proliferation of emergencies world-wide has made the 1990s a period of extensive and intensive humanitarian relief activities for the United Nations in general, and UNICEF in particular. 1993 witnessed another alarming increase in the number of emergencies with UNICEF becoming increasingly involved, not only in a number of high-profile complex emergencies, such as Somalia and the former Yugoslavia, but also in providing emergency assistance to countries affected by natural disasters and health emergencies. These events have included floods in Ecuador, Lebanon and Pakistan; a volcanic eruption in the Philippines; earthquakes in India, Egypt, Indonesia and Turkey; cholera epidemics in Mozambique, Peru and El Salvador, and an outbreak of cerebrospinal meningitis in Africa, putting some 20 million people, mainly children and women, at risk of starvation and disease.

In some countries, violent armed conflicts often combined with devastating natural disasters have wreaked havoc on basic infrastructure, disrupted vital social services and rendered millions of people homeless, destitute and exposed to disease, hunger and insecurity, threatening the very survival of communities and families. In addition, decades of development investment in people and infrastructure have been eroded. In a number of other countries, natural disasters produced their own devastation. In 1993, around 18 million people were driven by conflicts to seek refuge in neighbouring countries and an estimated 24 million were displaced within their own countries. Children and women bore the brunt of these calamities.

Children are the most vulnerable to many of the effects of disasters, natural or man-made. In poor communities, emergencies greatly exacerbate their existing chronic state of malnutrition and precarious state of health. The lack of shelter, warmth, clean water, sanitation and proper nutrition, sometimes combined with the loss of or separation from parents, greatly increases children's vulnerability. When populations are displaced, it is the children who are the most vulnerable to epidemics, such as measles and cholera, that arise in crowded camps and settlements. In harsh climatic conditions, it is children who are the most susceptible to exposure and respiratory disease, if shelter and warmth are lacking.

UNICEF's special responsibility to ensure that the basic needs of children and their mothers are met lends itself well to reducing their vulnerability to the impact of emergencies. Increasing their awareness, strengthening their resistance to deprivation and disease, increasing their household food security and increasing their capacity to cope with difficulties - the programmes traditionally associated with UNICEF - are those best suited to mitigating the effects on women and children.

Despite the massive international response, emergency situations keep growing in numbers and intensity. UNICEF in 1993 was involved in 64 emergency operations globally, continuing an upward trend since 1990, when it assisted 29 countries; this number rose to 50 in 1991, and to 54 in 1992.

Some significant successes were scored in responding to these emergencies. In

UNICEF Expenditure on emergency Programmes 1991-93

COUNTRY	PROGR. EXPENDITURE (million US$) 1991	1992	1993
Angola	6.4	7.7	9.8
Afghanistan	9.4	6.8	10.2
Ethiopia	7.5	10.2	5.2
Iraq	22.0	27.6	51.0
Kenya	0.1	6.3	9.9
Liberia	4.5	10.9	8.6
Mozambique	6.9	10.2	13.5
Somalia	3.5	27.3	29.4
Sudan	20.4	20.1	23.8
former Yugoslavia	0.2	13.3	19.4
Sub-total	80.9	140.4	180.8
OTHER EMERGENCIES	29.8	26.2	31.9
TOTAL - GLOBAL	110.7	166.6	212.7

Children and women in southern Sudan

Photo UNICEF/B. Press

Somalia, efforts at measles vaccination attained 75% coverage; the distribution and monitoring of seeds and tools for the re-settlement of refugees and displaced persons went ahead in Mozambique; Yugoslavia and Liberia were leaders in organizing and managing psycho-social trauma counselling and care for traumatized children and child soldiers; Iraq showed unique success with the successful distribution of kerosene, essential for the winterization programme; Angola successfully operated vital humanitarian assistance services across lines of conflict and Haiti drew the attention of the world to the adverse side effects of sanctions on vulnerable groups.

In 1993, Africa remained the continent in greatest need of emergency assistance and consequently was afforded the highest priority by UNICEF. The conflicts in Somalia, Angola and Liberia continued with tragic effects for children, while new conflicts and large population movements in Rwanda and Burundi will require major assistance in 1994. Continued support was given to other emergencies in East and Southern Africa: Ethiopia, Eritrea, Kenya, Mozambique. West and Central Africa faced growing crises with emergency assistance having to be provided to Liberia, Zaire, Togo, Congo, Côte d'Ivoire and Ghana. This trend is continuing in 1994.

UNICEF allocated significant resources to Africa for country-specific activities as well as for building regional capacity in prevention, planning, stress/trauma management and for emergency training. Because of the increase in emergencies in West and Central Africa, efforts also focused on establishing early warning systems, emergency preparedness activities, emergency training and improving emergency communication systems in that region.

Emergency assistance in Asia, Afghanistan apart, focused on providing immediate response to natural disasters such as the earthquake in India, floods and landslides in Nepal and a volcanic eruption in the Philippines, among others. UNICEF also provided assistance to strengthen emergency response capacities in Cambodia following the withdrawal of UNTAC. The conflict in Afghanistan escalated dramatically at the end of 1993 with the major cities coming under heavy attack, resulting in a huge exodus of the population from Kabul and other cities towards safe areas. The evacuation of international personnel from the country temporarily interrupted on-going emergency assistance. Monitoring and distribution of supplies is now undertaken and coordinated by national staff members who remain in the country, including Kabul, running UNICEF's office and programme.

Central and Eastern Europe, the Baltic States and the Newly Independent States continued to be an area of major concern throughout 1993, with the tragedy in the former Yugoslavia dominating world attention and creating Europe's biggest political, military and humanitarian crisis since the Second World War. The impact of this conflict on children has been devastating, with thousands of children killed, displaced or under siege. The conflict is also having a major destabilizing effect beyond Bosnia-Herzegovina, Croatia and Serbia, into Macedonia, Montenegro, and surrounding countries. Fighting continues to have devastating effects on an estimated four million people.

At the request of DHA, UNICEF co-ordinated humanitarian assistance in northern Iraq and southern Sudan with successful outcomes. In northern Iraq, UNICEF co-ordinated timely storage and distribution of 120 million litres of heating and cooking fuel to families and institutions. In southern Sudan, Operation Lifeline Sudan with UNICEF as lead agency reached 45 locations in 1993, up from seven in 1992. In Lebanon, UNICEF moved from providing immediate relief assistance towards a more reconstructive and development programme. The political situation in Algeria remained precarious with the situation expected to deteriorate

further in 1994 with the possibility of major effects on civilian populations. As a consequence, UNICEF is concentrating its interventions in this area on emergency planning and preparedness activities, enhancing emergency communication, security and training.

In the Americas and the Caribbean region, the continued political crisis in Haiti called for UNICEF support to emergency relief programme to meet the various needs of children and women. UNICEF assistance was provided for primary health care, immunization services, water supply and sanitation in rural areas. UNICEF provided assistance for children and women affected by floods and landslides in Ecuador, victims of a tropical storm in Cuba and Honduras and children in the indigenous region affected by insurgencies in the country.

Over the last year UNICEF has continued developing its policy framework for emergency operations in the light of the new global environment and the relentless increase in the number and complexity of emergencies. While strengthening linkages between its emergency work and its development goals, it has focused on areas of particularly relevant interest such as land-mines, the continuum from relief to development and the protection of the humanitarian mandate. In this process, UNICEF has continued to work closely with DHA, UN agencies and its international and local NGO partners, as part of a more co-ordinated and effective UN humanitarian response.

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World Food Programme: Summary of relief activities during 1993

1993 was a year of intense relief activity for the World Food Programme (WFP), the food aid agency of the United Nations: some 2.5 million tons of food commodities valued at US $1.2 billion were committed to 27.7 million natural and man-made disaster victims by the Programme in 1993.

The sustained level of conflict and civil strife situations throughout the world during 1993 led to a dramatic rise in commitments for refugees and displaced persons. In contrast, food commitments for drought victims fell sharply as a result of the phasing out of the southern Africa drought emergency.

Sub-saharan Africa, the former Yugoslavia and the NIS were the main regions for WFP relief activities during 1993. The former Yugoslavia was the single largest operation of the year mobilising some 526,000 tons or 20 per cent of annual aggregate relief commitments in favour of some 3.8 million refugees and displaced persons. Sub-saharan Africa as a whole received 1.2 million tons of food, valued at US $590 million for a total 16.7 million people.

In Africa, improvements were observed during 1993 in the overall relief situation in this region as a result of the cessation of hostilities in some countries and encouraging prospects for the repatriation of refugees and resettlement of displaced persons. Major relief commitments were made during the year in the Horn of Africa, in the Mozambique region in favour of returnees and displaced persons within Mozambique and for refugees in neighbouring countries. In southern Sudan and Angola, relief activities were having to contend with conflict situations, and in Liberia there was slow progress in follow-up to recent peace accords.

Assistance was also provided to victims of civil strife in the Burundi region and to displaced persons in Rwanda.

Relief commitments were also significant in Iraq (145,000 tons) and the Afghanistan region, including Pakistan and Iran (338,000 tons). In Cambodia, WFP completed the initial repatriation of some 270,000 refugees from Thailand and consolidated its relief and rehabilitation programme. In the Asia and Pacific region, WFP also assisted major refugee situations in Nepal and Bangladesh and provided food aid for natural disaster victims. In Latin America and the Caribbean, activities were reduced and included support for the repatriation of refugees to Guatemala and limited assistance for vulnerable groups in Haiti.

WFP is expecting to play a major role in rehabilitation and reconstruction activities in a number of countries during 1994 and has for many years been placing greater emphasis on the continuum from relief to rehabilitation and development in the initial planning stages and during the implementation of its relief response. Collaboration is also being strengthened with other UN agencies and NGOs in order to achieve this objective. Already all refugee operations are implemented jointly with UNHCR, while NGOs are key partners in nearly all major WFP relief activities.

(see tables pages 116-117 in the Annex)

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UNHCR: Facing up to new challenges

In 1992, an average of one UN worker was killed in the field each month. By mid-1993, the toll had risen to one a week

The environment in which UNHCR operates has changed dramatically in the past few years. The increased use of the "good offices" of the High Commissioner has broadened the range of operations conducted by UNHCR and placed field offices and staff in areas of danger and uncertainty. At the same time, the number of people requiring assistance from the organisation has risen dramatically, as a result of a focus by warring factions in many parts of the globe on civilian targets as part of their military strategy.

The relentless rise in the number of refugees has given a greater urgency to the work of UNHCR. In 1983, 11 million refugees were recognised by the agency. Ten years later, the figure had risen to 19 million. At least a further 24 million were displaced within their country of origin during 1993, and UNHCR has become increasingly concerned with the protection of and provision of assistance to these people, despite the fact that they are basically outside the organisation's mandate.

The long-term prospects for refugees being assisted by UNHCR have undergone dramatic shifts in emphasis during in the past few years. In the late 1970s, more than a quarter of a million refugees were resettled annually. In 1992, the figure was a meagre 37,000, or one in 500 refugees in the world. These statistics represent a changed attitude in many traditional countries of resettlement, once so eager for immigrants to boost their stock of human capital and score points against ideological enemies.

The world-wide recession and the end of the Cold War has reduced the willingness of countries to receive those who are obviously different and may have difficulty integrating. In Europe, the Maastrict Treaty has given rise to "Fortress Europe", a community of privileged countries presenting an almost impregnable outer wall to those who would enter, refugees and migrants alike. The Dublin and Schengen Agreements, covering most of Western Europe, have further limited the possibilities for asylum-seekers. Although UNHCR continues to insist on the necessity of resettlement, most countries have strictly limited their entry quotas to those with special needs, such as disabled, traumatised or elderly refugees.

This hardened attitude in the industrialised countries towards refugees has left repatriation as the only realistic option for most of the world's refugees. 1993 marked the successful completion of UNHCR repatriation activities in Cambodia, Nicaragua and Suriname. 2.5 million Afghans have crossed back into their country, 1.9 million assisted by UNHCR and more than 350,000 Mozambicans returned of their own accord. In all, three million refugees have returned home in the past two years, but crises or escalating conflicts in Burundi, Angola, Georgia, Ngorno-Karabakh and too many other countries have provided UNHCR with many new patients.

In many of today's conflicts, the creation of refugees is not only a by-product of the fighting, but is a distinct military objective in itself. The practice of

Photo UNHCR/A. Hollmann

The first tented camp in Europe since the Second World War is erected on a football field. (Croatia, Refugees from Bosnia-Herzegovina.)

"ethnic cleansing", first recognised in former Yugoslavia, has been repeated in Burundi and other countries. While UNHCR has been unable to prevent the commission of these violations of human rights and humanitarian law, it has exercised its mandate in many instances to provide legal and physical protection

to millions of victims of ethnic cleansing in former Yugoslavia and elsewhere.

In areas where humanitarian activities are proceeding alongside political negotiations and peace-keeping activities, the impartial and non-political nature of UNHCR operations has come under threat. The situation in Bosnia and Herzegovina has illustrated this most dramatically. In this war-torn republic, UNHCR has been forced to battle perceptions of partisanship and non-cooperation from the different factions wishing to use humanitarian aid to further their military and political objectives.

UNHCR, along with other aid organisations, faced increased threats to the safety of personnel during 1993. As UNHCR becomes more involved in providing assistance in conflict situations, the likelihood increases that factions wishing to disrupt the humanitarian effort will attack the unarmed and vulnerable links in the assistance chain. In 1992, an average of one UN worker was killed in the field each month. By mid-1993, the toll had risen to one a week. In some cases, UNHCR staff and facilities have been the deliberate target of attacks, including robbery, hijacking and destruction of vehicles and murder. In order to reduce the risks faced by staff in the field, UNHCR has begun to implement a comprehensive security plan.

In September 1992, the first full-time security consultant ever to work with UNHCR was hired, and the staff has since been expanded to three. The first mission was to former Yugoslavia, where basic security precautions were explained to staff and concrete measures implemented. A pocket-sized security handbook has been produced covering personal security, ambush counter-measures, first aid, survival, self-defence and crowd control techniques.

The three most important security elements in high-risk UNHCR operations are seen to be good communications, high-quality equipment including flak jackets and armoured vehicles and an excellent movement control system to keep track of staff members. Despite the guidelines, there are transport delays and equipment shortages, and this is one field which UNHCR will be focusing on in the future, as well as cooperation with other agencies facing the same risks.

Another area in which cooperation has been improved is coordination with NGOs to improve the efficiency and timeliness of response to refugee emergencies. UNHCR has initiated a consultation process with NGOs called PARINAC (Partnership in Action). Regional conferences to begin the groundwork for greater collaboration began in 1993, to culminate in a global conference in June 1994. ■

World Health Organization: Highlights of emergency activities in 1993

The number and severity of natural and man-made disasters meant that WHO's emergency action increased in 1993. Activities included emergency mitigation and strengthening of national capacity in emergency management, provision of humanitarian assistance in cases of natural disasters, and relief and rehabilitation assistance in conflict-related situations. WHO responded to more than 50 emergencies last year, including 28 complex emergencies involving war and civil strife.

In June 1993, WHO reorganized its emergency division, then called the Division of Emergency Relief Operations (ERO), and renamed it the Division of Emergency and Humanitarian Action (EHA). In November 1993, a Task Force on the restructuring of EHA was created, and its work is expected to be finalized shortly. The envisaged restructuring will provide WHO with a strengthened mechanism to respond more effectively to emergencies.

WHO's increased involvement in humanitarian assistance has come about through recent resolutions adopted by the Forty-sixth World Health Assembly in May concerning emergency and humanitarian relief operations, health conditions of the Arab population in the occupied Arab territories, health assistance to specific countries (Cuba), collaboration within the United Nations system to provide health assistance to specific countries and health and medical services in times of armed conflict.

World-wide activities

In Africa, some 20 countries benefited from this enhanced relief response in 1993. In Mozambique, WHO, in collaboration with others, implemented a primary health care programme for 100,000 demobilized soldiers. Support to health services in provinces where returnees and displaced persons will resettle is envisaged in the second phase of the programme, thus ensuring a continuum from relief to rehabilitation to development in that country. In Ethiopia, among emergency health projects implemented was one that concerned the rehabilitation of 40 provincial hospitals and health centres.

In Eritrea, WHO cooperated with other UN agencies in the resettlement of 500,000 Eritreans in different parts of the country. In Djibouti, WHO provided essential drugs and supplies to combat an outbreak of cholera. In Sudan, it financed the deployment of a mission to assess a kala-azar epidemic. In Somalia, interventions included cooperation in setting up a central pharmacy and a reference laboratory, and provision of urgent medical assistance.

In the Middle East, WHO collaborated with the United Nations interagency humanitarian programmes for Afghanistan, Iraq, Iran and Yemen. In Afghanistan, emergency medical supplies and equipment were provided. In Iraq, medicines and medical supplies were provided and distributed to various parts of the country. The Islamic Republic of Iran received assistance after suffering from a natural disaster, and Yemen received help in hosting refugees from neighbouring countries.

WHO also worked closely with local health institutions and experts, as well as Palestinians from the occupied Arab territories, to formulate a master plan for the transfer of authority and responsibility for the health services during the transition period and the promotion of broader regional cooperation in health matters.

In Europe, WHO has operated in Bosnia and Herzegovina, Croatia, and the Federal Republic of Yugoslavia (Serbia and Montenegro) since July 1992, providing and helping to coordinate humanitarian assistance. Activities in 1993 included assessment of health needs, technical advice, provision of medical supplies, and assistance to victims suffering from physical and psychological traumas.

As a member of the Interagency Task Force established by DHA, WHO also enumerated the emergency health requirements for Armenia, Azerbaijan, Georgia and Tajikistan. This was followed by the launching of United Nations consolidated interagency appeals, in which WHO is responsible for epidemiological surveillance, technical support for psychological rehabilitation, medical supplies, and technical cooperation in the area of water supply and sanitation.

In Asia, among other things, WHO participated with UNHCR in the repatriation of Cambodian refugees, and provided drugs for the treatment of tuberculosis, including the services of a medical officer for six months to support emergency operations.

New Emergency Health Kits were also supplied to countries affected by disasters, including Albania, Bangladesh, Egypt, Eritrea, Kyrgystan, Lebanon, Lesotho, Madagascar, Malawi, Namibia, Pakistan, Philippines, Rwanda, Sierra Leone, Swaziland, United Republic of Tanzania, Yemen and Zambia.

Emergency preparedness

On the emergency preparedness side, WHO helped to organize and support two important regional workshops for emergency health managers, one held in Bangkok, Thailand, for countries in the Asia-Pacific region, the other in Tangiers, Morocco, for French-speaking African countries. WHO also conducted a briefing on emergency preparedness for WHO representatives in the Eastern Mediterranean and Western Pacific Regions. WHO participated in the International Decade for Natural Disaster Reduction Day in October 1993 by issuing a press release, and undertook preparations for its inputs into the forthcoming UN World Conference on Natural Disaster Reduction, to be held in Yokohama, Japan, 23-27 May 1994.

WHO's research programme Hedip (Health and Development of Displaced Populations) continued its activities in Croatia, Mozambique and Sri Lanka, and new activities are planned for the Dominican Republic, Eritrea, and Mali in 1994.

WHO also began a situational analysis of its various information systems as a step in designing an early warning system that would complement the UN system-wide International Emergency Readiness and Response Information System (IERRIS). The plan includes upgrading national surveillance resources, improving country communication links and harmonizing WHO information systems. Work also commenced on the design of a national emergency information system for the Republic of Croatia.

To help support the strengthening of national capacity, the following publications, written or co-authored by WHO, are in their final stages of production: Community emergency preparedness manual; Management of nutritional emergencies in large populations; Environmental health manual for emergencies; and Rapid assessment protocols.

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International Organization for Migration: New areas of intervention in 1993

The growing need for more and better migration management in the context of the "continuum" from relief to rehabilitation and development helped strengthen the cooperation between the International Organization for Migration (IOM) and the UN system's approach to major and complex emergencies.

In 1993, demands for IOM involvement in such situations saw the organization embark on new areas of intervention, such as assistance to return home for demobilized soldiers and their families in Mozambique and training and capacity building for government officials and NGO representatives in the Newly Independent States, Russia and the Baltic States.

In former Yugoslavia, as a partner in the UNHCR-led Interagency humanitarian effort, IOM organized the documentation and transfer of patients who, due to the precarious state of medical facilities in the region, could not be treated locally. 30 countries participated in this major humanitarian programme. Other activities for victims of the fighting included transfers of persons to enable family reunion, in particular for family members of ex-detainees, to countries of temporary protection, processing of emigrants for resettlement abroad and movements within the region.

In Mozambique, where the transition to peace is well under way, aided by efficient UN coordination, the organization has been given responsibilities for transport and logistics for demobilized soldiers and their families, vulnerable groups among the internally displaced and, on behalf of UNHCR, refugees returning from Swaziland and South Africa. A network of 10 provincial offices, many of them staffed by UN Volunteers, facilitated the return home of hundreds of thousands of people after decades of war and unrest. Angola, Liberia, South Africa and Zaire are other priorities for IOM programmes and activities on the continent.

According to many experts, Africa's human resources capacity requires heightened attention. While this should be addressed first through developing adequate training capacity and development of structures capable to retain qualified nationals, reversal of the drain can also contribute to sustainable development. IOM has negotiated the extension of a major programme financed by the European Union to achieve this goal through the assisted return of African nationals to their countries of origin.

While the focus of international attention has shifted to new crisis areas, regions such as Central America and South East Asia still require attention. Countries ravaged by war, e.g. Cambodia, need to replenish their human resource base. For this country, a Khmer Expert Programme to help identify and return highly qualified nationals to assist the development of adequate indigenous human resources, has been operational for some time. A Central American Migration Secretariat, set up with EU funding under IOM auspices, is expected to facilitate migration in the sub-region.

Migration and refugee flows that effect the former Soviet Union, Eastern Europe and the Baltic States - often for the first time in recent history - require an adequate response capability. Technical assistance, training and capacity building for the administrations involved in

Photo LRCS/L. de Toledo

preventing or handling such movements have become an important part of IOM programmes in the region.

In a world of easy communications and transport, and against a backdrop of under-development, population resource imbalances and poverty in sending countries, the migration option is considered by many as a choice that leads to a better life. Strict immigration controls and a lack of realistic and credible information about conditions in destination countries often result in attempts to migrate in a clandestine fashion, employing the help of traffickers. Frequently, the victims of such illicit trade in human beings find themselves stranded in transit, and IOM has been called upon on several occasions to help these individuals return home for humanitarian reasons.

Increasingly the international community understands the need to prevent humanitarian emergencies wherever possible. Information on migratory flows as well as information on migration possibilities are elements for successful migration management. IOM programmes in potential source and transit countries address these issues and attempt to provide rapid, targeted and accurate information. These activities contribute to a better understanding of migration, its causes and implications, and thus help, avoid or direct population movements.

1993 witnessed growing readiness among the partners dealing with humanitarian issues to coordinate their action. IOM appreciates the key role assigned by the United Nations in this approach to the Department of Humanitarian Affairs. Limited financial resources make even more cooperation imperative. One step in this important process was the decision by the 48th UN General Assembly to give the International Organization for Migration access to the Central Emergency Revolving Fund (CERF). ■

The International Federation of Red Cross and Red Crescent Societies: Disaster response in 1993

The disasters in 1993 to which the Federation responded combined, as always, both disasters with a natural trigger - an earthquake, flood or drought - and those disasters whose trigger was man-made - in the main, conflict, though including a growing number of economic crises. The results in both cases were deaths and injuries, hunger and sufferin, and, in many situations, large movements of populations.

With its National Delegations, Regional Delegations and National Societies in 161 nations around the world, the International Federation of Red Cross and Red Crescent Societies issues a stream of relief appeals every year to support the efforts of National Red Cross and Red Crescent Societies to meet the needs of those affected by disaster. This is in addition to its annual Disaster Preparedness and Development Programme to support the growth and capability of National Red Cross and Red Crescent Societies.

Although the number of relief appeals fell from 54 in 1992 to 31 in 1993, the number of operations moved down from 54 to 45, and the number of people targeted for assistance declined from 19,408,450 to 15,182,400, the total value of aid sought climbed once more, from Sw F 304 million in 1992 to almost Sw F 410 million in 1993, reflecting the growing cost, duration, scale, complexity and diversity of disasters worldwide.

As well as a major shift in the direction of Europe because of the enormous increase in needs in the former Soviet

PhotoLRCS/L. de Toledo

Union and the former Yugoslavia, the appeals and operations also reflect the common themes of today's disasters: conflict, denial of human rights, increasing vulnerability and the crucial role of timely, high-quality information. Finally, they are a reminder of the disasters affecting millions that pass us by, forgotten or ignored in a world where disasters are increasingly common.

These range from appalling combinations of war, refugees and economic collapse of the Caucasus and Yugoslavia to the death toll of India's earthquake, and include the success of disaster averted in drought-affected Southern Africa, the risk of impending disaster in drought-prone north-eastern Brazil, and even the positive signals that are all too easily missed amid the seemingly intractable conflict and chaos of today's Somalia.

As the table below shows, disaster response is a multi-million dollar business. The Federation, in common with many other agencies, has faced an unprecedented growth in the size of the problem it is being called upon to tackle. And it is a problem which is no longer being solved by short "relief" inputs.

	1988	1989	1990	1991	1992	1993
Relief Appeals (number)	51	39	44	45	54	31
Relief Appeals value (Sw F)	193	54	121	263	304	410
Development Appeals value (Sw F)	n/a	n/a	32	62	104	72
Delegates (number)	185	245	332	543	523	669
Target Beneficiaries (millions)	n/a	2.6	5.2	5.7	19.4	15.2

Many of our intervention programmes now turn into long-term welfare and structural assistance. Supporting these programmes and turning them into programmes for sustainable recovery is now the key operational issue facing the Federation.

The overall objective of the Federation is to "inspire, encourage, facilitate and promote at all times all forms of humanitarian activities by National Societies with a view to preventing and alleviating human suffering and thereby contributing to the maintenance and promotion of peace in the world" (Article 2 of the Federation Statutes).

The challenge of the Federation, as set out in its Strategic Work Plan for the Nineties, is to improve the situation of the most vulnerable through four major goals:

- Enhancing respect for human dignity and humanitarian values;
- Improving the capacity of vulnerable communities in crisis;
- Improving the capacity of vulnerable communities in the long term;
- Strengthening the Federation.

The International Federation of Red Cross and Red Crescent Societies is an international humanitarian organisation comprising more than 150 National Red Cross and Red Crescent Societies with a Secretariat based in Geneva, Switzerland, and with delegations in other parts of the world. It has no political, religious or racial affiliation. Its emblem is a red cross and a red crescent on a white oblong with red borders.

This article is extracted from the forthcoming World Disaster Report 1994, to be published by the Federation in May 1994. ■

The Evolving Role of the International Committee of the Red Cross

"Thought without action leads to nothing; action without thought leads to disasters"

The Roundtable on "The Evolving Role of the ICRC" took place in New York on November 3, 1993. It was attended by some 50 prominent personalities drawn from academic, media, business, public policy and diplomatic circles. The speaker was Dr. Cornelio Sommaruga, the President of the International Committee of the Red Cross (ICRC) and the discussion was moderated by H.E. Mr. Richard Butler. What follows is an adapted version of Dr. Sommaruga's address and the subsequent discussion.

Dr. Sommaruga began by saying that, with a local staff of approximately 7,000, a budget of one billion Swiss francs, and 150 missions spread over the globe, the ICRC has the means to operate in a range of conflicts. It is active in three types of situations: international conflicts, such as the Iran-Iraq War; internal conflicts, although the organization has a weaker basis in international law to act in these cases; and non-conflictual situations of tension and internal violence. Activity in the last category includes visits to 95,000 prisoners in 2,355 different places throughout 54 countries.

Dr. Sommaruga commented that it is the international environment, not the ICRC, that is evolving. The ICRC's mission to prevent and alleviate human suffering has remained constant. The challenge it faces in the changing international context is to prevent politicization of the movement's activities. The ICRC has to maintain its credibility as an impartial, independent and neutral institution in the eyes of those expecting assistance. When victims of armed conflicts receive aid from impartial institutions like the ICRC, that assistance does not constitute interference or intervention, but when governments become involved, humanitarian action risks becoming politicized. Dr. Sommaruga acknowledged the political dimension of humanitarian action but could not accept the use of humanitarian relief to achieve political goals.

The motor of international humanitarian law

Henri Dunant, the founder of the ICRC, envisioned the institution as "the motor of international humanitarian law." Its responsibility was to see that the Geneva Conventions, which regulated conduct in war, were universalized, disseminated and respected. Dr. Sommaruga argued that existing laws must be deepened and adapted to the current environment, and a mechanism devised to better enable the ICRC to ensure respect for humanitarian law.

Another major challenge for the ICRC is the assurance of security for its personnel. Last year's Council of Delegates of the Red Cross and Red Crescent awarded seven out of ten Henri Dunant medals posthumously to ICRC workers who had died while performing their duties. The problem of security also applies to United Nations and other aid workers in the field but the ICRC faces a special challenge as the Red Cross and Red Crescent emblems have traditionally served as protection. Dr. Sommaruga asked how, in existing circumstances, "the sanctity of the emblem" could be maintained.

Faced with a world in which human behaviour could be so horrible, Dr. Sommaruga wondered whether it was enough to disseminate the law. Perhaps humanitarian principles and a new ethical message should be spread, with the aim of creating a "culture of respect for human dignity and life, a culture of solidarity and a culture of tolerance." Although the ICRC does not negotiate for peace directly, Dr. Sommaruga hoped that through its humanitarian actions, the Committee was contributing to peace in the world.

Ambassador Butler opened the discussion by noting that the relationship between humanitarian needs and politics was not fully delineated. Acknowledging that humanitarian action must not be politicized, he also raised the opposite concern: How to ensure that political action was "humanitarian". In this transitional era in world politics, characterized by new conceptions of sovereignty, intervention and humanitarian action, the UN is being required "to work and think at the same time". Quoting a Japanese proverb, Dr. Sommaruga added: "thought without action leads to nothing; action without thought leads to disaster."

Asked about the role of the ICRC within UN efforts in the humanitarian field, Dr. Sommaruga stated that the work of the two organizations did not run counter to each other. The problem, however, is that by integrating political, military and humanitarian action, humanitarian actors risk being perceived as partial. The independence of the ICRC combined with the "mononationality" of the Swiss

institution are its most important characteristics, both because they increase efficiency and help preserve the perception of its impartiality.

Neutrality does not require equal assistance to all parties but rather a "victim-oriented" approach

Dr. Sommaruga believed the UN should be involved in humanitarian action, even though it was a political organization, but pleaded for "humanitarian space" within Peace-keeping and Peace-making operations. Within that humanitarian space, neutrality and impartiality can be preserved. Neutrality does not require equal assistance to all parties but rather a "victim-oriented" approach. Reaching the most vulnerable victims is the standard to be applied.

In a related comment, one participant suggested that humanitarian action could play a constructive political role. The humanitarian corridors in the Sudan, it was argued, constituted a "local cease-fire" that could be expanded to a larger peace. Similarly, a humanitarian conference for Somalia would send a powerful political message. Dr. Sommaruga agreed in principle but emphasized the practical difficulties of using humanitarian action in this way. Humanitarian corridors cannot be imposed. A humanitarian conference for Somalia could be politically effective but if even one group was left out of the meeting, it would become politicized.

Addressing Dr. Sommaruga's earlier statement about the challenge of providing security for its personnel, a participant asked whether the ICRC could operate more easily if UN forces protected material aid to the point of distribution. He responded that local protection had been used in Somalia, but this was an exceptional case. Furthermore, the difficulties of distributing aid in Somalia had been exaggerated - the ICRC had lost only about 10% of the food to the local guards. The alternative of UN protection was also problematic, although an exception had been made in the former Yugoslavia, where UNPROFOR had provided protection for liberated prisoners.

Regarding UN responsibilities under international humanitarian law, one participant noted reports of violations by some of the approximately 80,000 peacekeepers in the field. The UN has taken the position that, not being a signatory to the Conventions, it cannot be held responsible for the breaches - legalistic arguments rejected by Dr. Sommaruga. Peace-keepers are from state signatories to the Conventions. Accordingly, as the Department of Peace-keeping Operations has recently declared, the UN and countries contributing troops should make inquiries as to breaches of international humanitarian law and the latter should enforce the law against their own troops.

Another participant noted the significant political role played by many non-governmental organizations through the media. These NGOs often use the media spotlight for purposes of fund-raising while the ICRC seems to remain immune to this type of behaviour. In response, Dr. Sommaruga pointed out that the ICRC needed the media, not for fund-raising, but to spread its message that victims had rights and parties to conflicts had certain duties. The ICRC receives 85% of its funds from approximately 100 different governments. He added that the ICRC works with NGOs and wants to inculcate an "ethic of behaviour", which includes a code on how to deal with the media. ■

The Role of NGOs in Complex Emergencies

The Inter-Agency Standing Committee Working Group in its latest meeting on 24 February received a draft paper on the Role of NGOs in Complex Emergencies. The following general principles of the role of NGOs were adhered to by the Working Group and will form the basis for a later discussion by it on the issue:

- ❑ In general NGOs should not only be seen as implementors of activities defined and/or sponsored by the UN but as equal partners, with mutual respect for each others' mandated roles. The activities of NGOs should be seen as complementary to that of other actors, not substituting for them.
- ❑ NGOs are often present in the country or the region of the emergency as it unfolds. NGOs should therefore be part of the early warning effort.
- ❑ NGOs often have more detailed knowledge of and are closer to affected populations. They are furthermore often indispensable implementors of emergency programmes. Therefore, NGOs should be part of needs assessment and programming from the beginning. They should increasingly be part of Consolidated Appeals as well as the process through Disaster Management Teams and other coordinating bodies for prevention, preparedness and local capacity building.
- ❑ NGOs have a capacity for rapid response which is crucial in emergencies. Consideration should therefore be given to the establishment of flexible funding mechanisms that allow NGOs to develop their programmes as new possibilities or needs are identified.
- ❑ The effectiveness of the response to an emergency depends on the free flow of information, at all levels, on the activities of each actor in the emergency. As increasingly important actors, NGOs should systematically share all relevant

(continued on next page)

information with other agencies and contribute to comprehensive global financial tracking.

❑ NGOs responding to emergency situations should be fully integrated into the in-country coordination efforts. NGO personnel should be offered security protection along with staff working directly with the UN. In some situations the NGOs have better information channels and telecommunications than the multilateral system. In such situations NGOs might have to assume a primary role in ensuring security protection of all staff.

❑ To promote the partnership between NGOs and the UN, NGO representatives should be invited to participate in the development of the Disaster Management Training Programme (DMTP). They should further participate in the training exercises to promote the cross-fertilization of experiences and enhance mutual understanding and appreciation of their respective roles between the UN and NGOs.

❑ Systematic evaluation of emergency operations is the key to improving the international emergency response system, not least in the cases of complex emergencies. NGOs should be part of evaluation efforts, in particular when their activities are to be part of the overall evaluation of an emergency response programme.

While wishing to receive inputs from work already undertaken, the Working Group decided to focus a subsequent discussion on how to strengthen local NGO capacities, NGOs' roles in conflict resolution and reconciliation and their involvement in prevention and preparedness. ■

Hôpital Sans Frontière

"May hope abide in the hearts of each of us and may our deeds bring relief to those who suffer, both outside our borders and in France." (Georges Leboucq, HSF).

In 1993, humanitarian work to assist disaster victims in the four corners of the world increased considerably. Many non-governmental humanitarian associations participated actively in the efforts of the international community to relieve the suffering of the victims. These include "Hôpital Sans Frontière", established in 1976 by Tony de Graaf.

France, September 1993: Assistance to the Vaucluse disaster victims after serious flooding which left hundreds homeless. Hôpital Sans Frontière provided beds and mattresses and converted a school into an accommodation centre.

Kazakhstan, October 1993: An exploratory mission was undertaken to study health problems in the various districts of the region, with a view to finding possible solutions. This first study revealed a health situation that was in places critical. A list of needs was drawn up and as soon as this project is budgeted, Hôpital Sans Frontière will begin to look for partners to bring assistance to the hospitals in Kazakhstan.

Russia, October 1993: Following the events of 3 October, HSF shipped 300 kg of medicines to the Central Emergency Institute of Moscow.

Sarajevo, November 1993: 75 m³ of hospital equipment and medicines were sent to the civilian hospitals of the city of Sarajevo, transported by the French army, as part of United Nations action.

Somalia, January to June 1993: Following the signing of a convention with the Ministry of Foreign Affairs, with the agreement of the Ministry of Health and Humanitarian Action, HSF has been equipping all nine hospital departments, has been responsible for the overall management of the hospital, the hospitalization services and the operating unit (minor operations), for training local medical staff and for setting up a laboratory. In all, there were 280 hospital admissions and an average of 80 consultations per day.

The floating clinic

April 1993 saw the birth of a project entitled "From the Seine to the Ganges: a barge for Bangladesh". This project, which is to start early in 1994 and will be operational by July 1994, consists of converting a barge into a floating clinic and equipping and running it for a period of two to five years. The association Friendship will transport the barge to Bangladesh and Hôpital Sans Frontière will be responsible for the actual humanitarian mission.

Hôpital Sans Frontière

Hôpital Sans Frontière is a non-governmental humanitarian organization established in 1976 by Tony de Graaf. HSF works in France and throughout the world.

Two objectives

❑ ***To respond to emergencies***

By providing in the short term (2 to 3 months), all the physical (flying hospitals) and human resources needed to create and set up, completely independently, mobile health units to assist victims of accidents, natural disasters or war, or populations suffering from endemic diseases or facing severe shortages of medical services;

❑ ***To launch medium and long-term development programmes (project duration 3 to 6 years) by:***

Refurbishing hospitals and clinics; constructing treatment units; installing medical and surgical facilities; setting up vaccination, prevention, hygiene and disease-control programmes; training local staff. ■

Children
The most vulnerable of all

When a disaster occurs, everyone in the region is affected in some way, but some people have fewer resources and are less able to cope with the consequences. Women are socially disadvantaged in many societies. The elderly, the sick, mentally and physically handicapped people are all at greater risk than those around them, rich or poor. Children are today the largest group of extremely vulnerable people in difficult circumstances.

The following articles merely give a cross-section of the difficulties children encounter in natural disasters and complex emergencies, and the activities of organisations helping children.

In some refugee camps, children under fourteen are a majority of 70 per cent. They are more or less totally dependent on older family members, camp leaders, camp planners and other adults. Children caught up in conflict can be severely traumatised by repeated exposure to the horrors of war. Occasionally, they are forced to pick up a gun and commit violence. As civilians become military targets, children are at an ever-greater risk of suffering harm.

Children are incredibly resilient. With help, they can overcome and cope with the most terrible events or handicaps. The humanitarian community is becoming more aware of the plight of young victims, and designing programmes to better help them live and grow in areas such as health, education, trauma rehabilitation and care of orphans and children separated from their family. However, funding is limited, and more projects are planned than are ever put into practice. Immediate relief is a much higher priority for donors, and children's long-term needs are often overlooked when funding or material assistance is pledged. The donor community must realise soon that this preference for flour over textbooks is robbing the people's future to pay for their present, and will cost more in the long run.

Photo MSF/R. Job

Albania: The Third World in Europe

Despite hopes that the country would soon show signs of recovery, Albania is still a nation on its knees. Those who are suffering most from this situation are the country's retired people, those living alone, young couples and, above all, the children. Among the latter, it is the orphans, those who have been abandoned by their parents and the children of single-parent families who are the most deprived. This is why, several months ago, the Lausanne-based *Terre des Hommes* Foundation undertook a project based on a hostel in Korcë.

Robert Stratobërdha, a French teacher in this small town in south eastern Albania recalls how, "Because of its beauty and its perfect architecture, Korcë used to be called 'little Paris'. Today, unfortunately, things have changed greatly and everywhere can be seen the signs of the chaotic change-over from dictatorship to democracy. For example, as in other towns and villages of Albania, there are now virtually no trees left in the Korcë area". The trees were cut down by the inhabitants for firewood during the winters of 1991 and 1992.

The supply situation in Albania has since improved and there is no longer anyone suffering from cold or hunger. Nevertheless, the situation remains catastrophic, for the economy has not picked up as rapidly as many had hoped it would after the political changes that took place in 1990. The average Albanian income is about US $500 per annum, which is comparable to the income of an inhabitant of Mauritania or Togo. In contrast to expectations, foreign investors are slow in arriving, because of the war in the Balkans and the unstable social situation. Furthermore, world public opinion does not seem to be interested in Albania now that the spectacular political events are things of the past and the number of refugees is decreasing.

An economy on its knees

Yet life goes on in Albania. The people gain their livelihood mainly from trade, agriculture and the money sent home by families abroad. Robert Stratobërdha says "I, too, was ready to leave for Greece to work on a building site, because I was earning only US $30 per month on my teacher's salary. That is scarcely sufficient to feed my family". For the last two months he has been working as a part-time translator for Terre des Hommes, which is carrying out a new project to help orphan children and children from families in difficulty, in the town of Korcë. As Robert Stratobërdha points out, "Terre des Hommes is working to help a part of society no one else is worrying about".

Today, three quarters of the economically active population of Albania are unemployed. An unemployed person receives about US $15 per month from the State. That is not enough, for a kilo of sugar alone already costs US $0.50. Most of the population, and particularly the poorer elements of society, are dependent on the State machinery. Unfortunately, the latter functions very inefficiently because of its lack of resources.

The effort to prevent disintegration of the social framework

A society which is living on the edge of poverty faces the threat of disappearance of its structural framework. "The family

Photo Terre des Hommes

plays an important part in Albanian tradition", says Robert Stratobërdha, "but, because of the difficulties of daily life, many families are breaking up, as each member tries to manage on his own". The elderly are abandoned by their children, young mothers abandon their babies or entrust them to an orphanage and husbands leave their wife and children in order to try their luck abroad. The Terre des Hommes movement is endeavouring, through its action, to counter the consequences of this situation. "There are just six of us", says Christian Ferrier, a *Terre des Hommes* delegate in Albania, "two translators, a male and a female social worker, an educationist who handles the continuous training of staff and one delegate". This team makes regular visits to families living in the area that are in difficulty, to evaluate their need for material and financial assistance.

In addition to this work in people's homes, Terre des Hommes supports an orphanage which takes in children under the age of three years. According to Christian Ferrier, "One third of the children admitted are kids who were abandoned in the hospital by their mother just after their birth because the mother was unmarried. The others reached the orphanage because their parents were dead or were experiencing financial, social or other difficulties". The aim of this project is to improve the living conditions of the children. It began with the repair and renovation of the building and now includes improvement of the children's teaching environment.

As Robert Stratobërdha points out, "In an economic and political crisis situation, school fulfils an important role in the social integration of children". As one of his colleagues explains, the schools remained open even during the period of the greatest upheaval. "We thus avoided having the children wandering about the streets and taking part in the general disturbances". At that time, however, the schools were lacking in everything and teaching was made difficult by the absence of books and equipment. Even today it is not certain that the teachers will have sufficient books for the new school year.

Despite all these difficulties, most Albanians are looking to the future with hope. Many of them believe that if Europe helps Albania things should improve within five years. This, however, will call for further and greater efforts.

Help for the poorest of the poor

Under its Korcë project, Terre des Hommes is caring only for children who have no parents or who are from a single-parent family. What was the reason for this decision? The *Terre des Hommes* delegate explains: "Of course, conditions for all children in Albania are difficult today. However, those children who are in the greatest distress are those who are left entirely to their own devices. Children whose family is intact are better protected. The activities of *Terre des Hommes* in Albania are based on the movement's philosophy which is to offer assistance to the poorest among the poor". ■

Romania: The Forgotten Children

It was four years ago that we saw those first frightening pictures taken in the orphanages of Romania. For many people, they symbolized Ceausescu's totalitarian system. Today other Romanian children are making the headlines: the street children of Bucharest. These children are not, however, a new problem. What is new is that they are now being talked about. The Terre des Hommes Foundation, based in Lausanne, has launched a major programme in aid of Romania's forgotten children.

In the centre of Bucharest, a city of two million inhabitants, at least 1,400 children live all the time or part of it in the streets. This may seem few, compared with Brazil, where millions of children are living in the streets of the major cities. But, whether it be in Rio or in Bucharest, the fate of children who have to seek their food in refuse bins, hide from the police or try to forget their situation by sniffing cheap drugs is just the same. The only difference is that the street children of Bucharest live just next door to us.

Countless Andrejs, Petrs and Marias have told the story of their life to journalists or aid agency workers. Their story is always the same: because of alcohol problems, family difficulties or financial troubles, their parents no longer bother about them. Sometimes it is the children themselves who seek to escape from this situation. In other cases it is the parents who place them in an institution or send them out into the street. The North Railway Station in Bucharest and its metro station are the places where they mainly live. The large crowds which pass through these places enable the children to survive by performing small jobs, begging, stealing or prostituting themselves. At night the station offers many spots for sleeping that are more or less sheltered from the wind and bad weather.

If nothing is done the situation will get worse

Western Europe was momentarily frightened on learning of the conditions

(Continued on next page)

Photo Terre des Hommes

Children living in the streets

in which these children are living only two hours by air away. Last year no one knew how many children were thus surviving by themselves in Bucharest, where they came from or why they had left their homes. The only action being taken was that carried out by the police, which sought to keep the situation under control by rounding up the children from time to time.

Then the first action by the humanitarian organizations began. Under a mandate from the EEC and the Romanian Government, four non-governmental organizations, including Terre des Hommes, carried out a survey with a view to coordinating their assistance and determining not only the effects but also the causes of the street children phenomenon.

The survey has shown that most of the children are between the ages of 12 and 16 years and that two-thirds of them are from the provinces. Unexpectedly, the number of them who have run away from institutions is relatively low: only one in five of the children was previously in a children's home. The children organize themselves in small gangs and settle in different locations, according to their age. In addition to frequenting the North Railway Station, some of them, including a group of young people who make a living from traffic in a cheap drug (Aurolac, a footwear adhesive), live around the Obor Market. The youngest children seek shelter in the centre of Bucharest.

The organizations that conducted the survey point out in their report that the present situation provides grounds for fears that the street children problem will get worse in the medium term if nothing is done by the authorities. "We now find that the hostels are filling again", says Fernando Colella, who is in charge of the Terre des Hommes programmes in Romania. "The present economic situation is still preventing families from taking care of their children. We then find these children in the streets." He says that the state's social services would like to do something for these children, but they lack the financial resources and have no experience in this field.

Instead of systematically placing the children in institutions, it is important to try to learn the causes of their marginalization and to provide them with assistance suited to their needs. Experience has shown that pity alone does not suffice to provide appropriate assistance and that observance of certain social rules has often led to ill-thought-out solutions leading only to cleaning-up operations in the streets or the institutionalization of children.

The action being taken by Terre des Hommes

Terre des Hommes is endeavouring to base its action on the experience it has gained. Its new project includes two main approaches: work in the streets and provision of a day centre. The aim is to reintegrate the children into their social environment, either by offering them training to enable them to provide for their own subsistence, or by helping them to rejoin their family or be admitted to a suitable hostel.

As a result of patient work over several months, both at the North Railway Station and in the streets of Bucharest, the trust of the street children has been gained. Since many of them, for lack of anything better to do, have begun to consume drugs, they are being offered a wide range of activities such as sports, artwork and classes in various subjects. Social workers are operating at six different places in the city where the street children congregate. They encourage the children to come to the Terre des Hommes centre where they are prepared for reintegration into society through participation in various activities. This offer, based on the voluntary participation of the children, provides the latter with a new anchor and thus enables them to establish new relations of confidence with adults.

The new Terre des Hommes centre was officially opened at the end of February in the presence of the Romanian authorities. The oldest of the children took part in the necessary renovation work. They themselves helped to create their centre, a place of refuge for them, they have a say in decisions concerning its operation and they are being given responsibilities. Even if, for the time being, this permits achievement of only one result - namely that they will think twice before breaking a Bucharest shop window in a moment of frustration - it is nevertheless a very important first step towards reintegration into society. ■

Four Events which Marked the Rights of the Child in the World in 1993

***Defense for Children International Movement,* a worldwide organization established in 1979 to promote the rights of the child, endeavours to publicize and promote understanding of the Convention on the Rights of the Child, supervises observance of the rights defined in the Convention and intervenes as necessary to safeguard those rights. It acts essentially through its international secretariat in Geneva and its branches in some 50 countries on all continents. It enjoys consultative status with the Economic and Social Council of the United Nations, with UNICEF and with the Council of Europe.**

Four Events which marked the Rights of the Child in the World in 1993

The year 1993 was not particularly favourable for the protection of the rights of the child around the world. Many war zones grew (former Yugoslavia, Afghanistan, Sudan, Somalia, Liberia, etc.); the world economic situation deteriorated, with repercussions on the living conditions of children in both the North and the South, and in particular on the exploitation of child labour, sexual exploitation and other forms of abuse. In this sombre picture, Defense for Children International Movement, a non-governmental organization whose aim is to promote and protect the rights of the child around the world, has identified - among many others - four phenomena which it considers to be particularly characteristic of current trends with regard to the protection of children.

Photo MSF/R. Job

Trafficking in children in Central America and Eastern Europe - high-risk regions

Trafficking in children for international adoption exists in many regions of the world, but has become particularly common in Central America and Eastern Europe. The latter region has become ultra-sensitive in this respect, since the

Photo LRCS

Children from Brazil

various countries concerned possess neither the legislation nor the infrastructure necessary to regulate this practice effectively. In Russia in particular, the rapid development of unlawful activities in various sectors also includes trade of children. In order to avoid these flagrant violations of the rights of the child, the Conference on Private International Law (held in The Hague in 1993) adopted a convention on international adoption which entered into force in the same year and has so far been signed by eight countries.

Murders of children in Brazil: international community stirred into action

On the night of 23 July 1993 in Brazil, four armed men opened fire on a group of children who were sleeping in the heart of Rio de Janeiro. Five of the seven children, aged between 11 and 17, were killed. For the first time a massacre of this type aroused great indignation at the international level. It had taken almost 10 years and the extrajudicial execution of several thousand of street children for these murders to provoke reactions on the part of the international community and for the perpetrators of these crimes, often employees of the State, to be punished.

Sierra Leone: child-soldiers demobilized

The war raging in both Liberia and Sierra Leone involved many children in all the factions concerned. UNICEF estimates that 6,000 children were fighting in Liberia, while the figure for Sierra Leone in early 1993 was about 1,000. In the spring of 1993, however, the authorities of the latter country, following negotiations with UNICEF, decided to demobilize all the children enlisted in the regular army. This was a completely innovative political decision that was supported by numerous non-governmental organizations, which set up a rehabilitation centre for some 350 of these children. The Sierra Leone authorities took this action out of respect for the Convention on the Rights of the Child. However, the children enlisted in the rebel armed forces are unfortunately not covered by this programme of reintegration of child soldiers within civilian life. According to numerous experts, in 1993 children played a direct part in warfare in 27 countries.

Photo T. Gavaghan

Sierra Leone

Convention on the Rights of the Child: the Committee on the Rights of the Child begins its examination of national reports

The entry into force of the United Nations Convention on the Rights of the Child in 1990 aroused great hopes among all those who are concerned about the protection of children throughout the world. Today, 154 States have ratified this international treaty and have accordingly agreed to participate in the monitoring mechanism set up by the United Nations. To this end in January 1993, the Committee on the Rights of the Child, composed of 10 experts, began its work of examining national reports. The reports of 12 countries were examined by the Committee. Certain countries - Rwanda, Sudan, El Salvador and Peru - did not fully satisfy the experts, who called on their representatives to provide additional information. ■

International Secretariat
Defense for Children International
Movement,

Rebuilding tiny lives in the Sudan: Education and aid to traumatised children

The years of conflict in the Sudan have left their mark on the children as well as the adults. 25,000 have been separated from their families and hundreds of thousands more have been displaced. UNICEF and NGOs were able to reunite 500 children with their siblings and/or parents in 1993, but many problems remain.

A recent field study of children living in conflict zones by a specialist employed by UNICEF confirmed that they are among the most traumatised in the world, having repeatedly been exposed to hunger, violence and death. In addition, the breakdown of the school system of the Sudan has abolished the chance for them to receive the education that is every child's right.

Following the trauma study, UNICEF and Rädda Barnen began a pilot programme in Nasir, near the Ethiopian border, to help children begin their rehabilitation. Using drawing, music and drama, hundreds of children were able to act out their frustrations and fears. This technique is widely believed to be the best method of overcoming the hostility and internal suffering which can affect children far more than adults, even if they appear untouched in the short term. Unfortunately, there are very few skilled people in this field and UNICEF believes training of teachers and aid personnel is an urgent priority.

Another initiative in 1993 was the emergency education project, which helped more than 270,000 displaced children in the Sudan. Education reflects a sign of normalcy for children living in distressed circumstances, meets an essential need of childhood and is a key to the development of human resources at the local level. Eight state-level committees were established to take responsibility for planning, implementation and monitoring of the project in cooperation with national NGOs. The project involved training more than 1,000 teachers and providing them with educational kits (chalkboard panels, chalk and guidebooks). Student kits consisting of exercise books, pencils, geometry sets and textbooks were also distributed. Students' communities were involved in the construction and rehabilitation of classrooms, school latrines and hand-pumps. Additional educational material, textbooks and furniture was also made available to another 1,000 schools in the south of the country, which made it possible for disrupted services to begin again. In Bahr el Ghazal state alone, 64 schools were reopened. ■

Malnourished child with his mother, Sudan.

Photo LRCS/L. de Toledo

Photo UN/Gamma

SUDDEN EMERGENCIES

Responding to Sudden Emergencies and Coordinating Relief

DHA has the important task of coordinating and facilitating international relief assistance following sudden-onset disasters and similar emergencies. These articles illustrate some of the activities of DHA in fulfilling this crucial part of its mandate. The tables in the annex present DHA's involvement in natural disasters in 1993.

At the international level, the Department provides a framework for the coordination of relief asssistance by United Nations entities, bilateral donors, and intergovernmental and non governmental organisations. At the country level, this framework is provided by the United Nations Resident Coordinator and the United Nations Disaster Management Team. The Department has the further role of coordination at the site of an emergency.

The Department's strategy on responding to sudden-onset disasters is based on introducing a more active, systematic and operational approach, assuming immediate system-wide relief coordination responsibility when a disaster strikes. In the event of a disaster, one immediate action taken by the Department of Humanitarian Affairs is the issuance of a situation report/appeal for assistance to the international disaster management community. This information is constantly updated to provide an accurate overview of the situation which is transmitted to a list of more than 350 addresses world wide.

In major incidents, at the request of the Government of the affected country, the Department arranges for a mission for assessment and coordination support to the Government, working closely with the Resident Coordinator and the Disaster Management Team. Stand-by capacities for prompt dispatch of such missions to the disaster site have been strengthened by the recent establishment of the United Nations Disaster Assessment and Coordination Stand-by Team.

In both the storage and dispatching of relief supplies the capacity of the operational agencies is crucial. The United Nations Children's Fund (UNICEF) has played an important role in this respect and has provided considerable relief assistance through the UNICEF Procurement and Assembly Center (UNIPAC) warehouse facility in Copenhagen. The Department has additionally made active use of its warehouse at Pisa, Italy which serves as an effective instrument to dispatch and store urgent relief supplies. ■

DHA Rapid Response Stand-by Team (UNDAC)

DHA has established an arrangement, initially with eight Governments, to provide members for the first United Nations Disaster Assessment and Coordination Stand-by Team for rapid reaction following a sudden onset natural disaster. The UNDAC Stand-by Team has already been mobilized following recent sudden onset emergencies.

In a disaster situation no help is as efficient as that which is locally available. Unfortunately, no matter how well prepared a country may be, or what resources it has at its disposal, it can still face a situation which requires more resources than it can deploy, particularly when its own disaster management structure has also been hit by the event. Moreover, while international relief teams may bring welcome specialized know-how, as well as technical resources, to the site of a disaster, recent emergencies have clearly shown that much can still be done to enhance the overall effectiveness of such operations.

From 27 June to 9 July 1993, 24 experienced emergency managers from eight countries joined four members of the Relief Coordination Branch of DHA in an intensive two-week course aimed at setting up the first UNDAC Stand-by Team. The participants, from professions as varied as civil engineering, medicine, logistics, fire fighting and journalism, were selected by Austria, Denmark, Finland, Germany, Norway, Sweden, Switzerland and the United Kingdom on the basis of their skills and experience in emergency situations.

Shortly after the initial Training Course, an UNDAC Stand-by Team member was sent to Nepal from 27 July to 8 August with a DHA Relief Coordination Mission, following the serious floods that struck the country; a three-person UNDAC Team was deployed to India from 30 September to 9 October 1993, arriving only 24 hours after the Maharashtra earthquake; two UNDAC Team members participated in a Relief Coordination Mission to negotiate a humanitarian corridor and organize a convoy to bring shelter, clothing and food aid to 150,000 displaced people in Georgia.

In addition, during Exercise 93 in Austria the UNDAC Stand-by Team played a key coordination role at the On-Site Operations Coordination Centre (OSOCC).

The 28 members of the Team spent two weeks gaining a perception of the role on-site of DHA in a major natural disaster, acting out a simulated emergency, sitting in on a typical meeting of the United Nations Disaster Management Team (DMT) in the capital of the imaginary affected country. They were able to exchange views with the members of the UN agencies who took part. For some it was a time when opinions were clarified as they realized how the UNDAC Stand-by Team would fit into the existing in-country UN system for emergency management with a DMT lead by the Resident Coordinator in collaboration with UN agencies, in accordance with their respective mandates.

The UNDAC team will be active during the immediate survival phase of a disaster, normally less than two weeks, working at the site of the disaster, assessing the situation and initiating procedures for on-site coordination which could later be extended by a longer-term coordination mechanism.

The UNDAC team will cooperate with and provide the DMT, led by the United Nations Resident Coordinator, with an instrument for coordination and implementation of relief policy at the on-site level, as well as with additional personnel resources with specialized experience in emergency assessment and operational relief coordination. In addition the exchange between the members of their own experiences in emergency management made an important contribution to the issues considered. Most significantly, during the fortnight of the course the strangers who met on the first day started to work as a team.

The first UNDAC Stand-by Team Training Course was generously funded by the Government of Switzerland. The initial pilot course included participants from Northern Europe and future UNDAC Training Courses will be expanded to ensure a wider geographical representation in the team including emergency managers from disaster-prone developing countries. ■

DHA's Pisa Warehouse: A valuable asset

In 1993, 23 shipments left DHA warehouse in Pisa, Italy for 12 different countries. The largest single shipment, of 134 metric tonnes, was organised in cooperation with the Italian Government for Somalia in November. Mercy flights to Eastern Europe, the Middle East and Africa carried urgently-needed relief materials in the aftermath of natural disasters, such as floods in Iran and Tajikistan, and hailstorms in Eritrea. Others went to assist people displaced by civil strife in Armenia, Lebanon and Burundi.

The largest recipient of aid from the Pisa warehouse was Georgia, which received eight flights totalling 256 metric tonnes, with a value of US $1.5 million. The Governments of Italy, Switzerland, Luxembourg and Finland, as well as UNICEF, the WFP and OXFAM contributed heavily to the shipments of clothing, blankets, diesel generators, food rations, medical supplies, kitchen equipment and toys which were distributed in Tbilisi and affected areas in South Ossetia and Abkhazia.

The warehouse at Pisa is the fruit of international cooperation. The Italian Government financed the construction of Warehouse C and funds the maintenance of a comprehensive emergency stockpile. Most of the relief items in storage have been donated by the Governments of Norway, Finland, Italy, Japan and Luxembourg. Furthermore, several Governments (e.g. Austria, Finland, Norway, Switzerland and the United Kingdom) cooperate with the DHA warehouse for specific relief shipments.

Pisa is not, however, just a place to stockpile relief items. In 1993, the warehouse also confirmed its capacity as an assembly centre for international relief, not only for DHA shipments, but also for other UN agencies. Since the warehouse started to be operational in 1987, 223 shipments, totalling more than 5,000 tons of relief goods, have left Pisa for 67 countries.

Pisa is well situated, with easy access to air lanes going to Africa, the Middle and Far East, and South America. Road, rail and sea connections are equally convenient from the Pisa warehouse. The seaport of Livorno is only ten kilometres away. The warehouse is contiguous to the United Nations Supply Depot (UNSD), which provides support to UN Peace-keeping forces.

The Pisa location ensures that the warehouse can operate year-round. Since the beginning of operations, no flight has ever been grounded due to bad weather. The limited number of staff dealing with stockpiling keeps administrative costs to a minimum.

Stocks consist of about twenty different kinds of basic relief items, which are despatched to emergency-stricken areas as gifts. Standard relief items at the warehouse are tents, blankets, water containers, generators, tools (picks, shovels, hammers, nails), plastic sheets and cooking utensils. ■

Using Military and Civil Defence Assets (MCDA) in Disaster Relief

The disasters of the past decades have proven that there is a great need for international foreign relief capacity in large scale emergency situations. Numerous relief workers of NGOs and humanitarian agencies are making enormous efforts in dealing with disasters. In many instances the use of military and civilian defence assets (MCDA) has contributed significantly to disaster relief.

Military and Civil Defence teams are well suited to assist emergency relief operations as they are probably those best organized to provide support to a full range of public services. This includes public works, communications, transport, health and emergency medical services, rescue and support activities, all of which are intrinsic to military duties. In essence, the arguments for using MCDA in disaster relief concentrate on the tremendous logistic potential they can bring to an operation, a potential which has not been effectively used so far.

In October 1991, at the Fourth Meeting of Officials in Charge of National Emergency Relief Services, DHA-Geneva was requested to explore the possibility of making more systematic use of military and civil defence assets, following an evaluation of relief activities carried out by the military during previous disasters. In this way, Project 213/3 on the use of military and civil defence assets in disaster relief was born.

In December 1992 DHA-Geneva, with the International Federation of Red Cross and Red Crescent Societies, organized a Workshop on the use of Military and Civil Defence Assets in Disaster Relief. The Workshop took place in Brussels and was hosted by NATO. It was chaired by Major General Günther Greindl from Austria.

The goal of the Workshop was to bring together delegates of member states, military experts and representatives of humanitarian organizations in order to discuss problems and possible solutions related to the use of MCDA under international coordination. The Workshop aimed at initiating the process of formulating guidelines for the use of MCDA, proposing the establishment of an MCDA register and developing the process of cooperation of all relevant bodies making use of MCDA. DHA-Geneva published a full report on the Workshop in early 1993.

The Brussels Workshop recommended that DHA continue work on the Project 213/3 and that a further conference be held in a year's time in order to review the work. DHA, assisted by a Standing Coordinating Group, chaired by Major General Greindl and composed of participants from the Brussels Workshop, is currently working on guidelines for the use of MCDA. ■

Exercise '93: A first for disaster management

Exercise '93, the first large-scale international exercise in emergency response, sponsored by DHA, was hosted and organised by the Government of Austria and the Austrian Ministry of Defence on 1-6 September 1993 in the region of Baden-Wiener Neustadt.

The heart of the Exercise was the demonstration of the tools at the service of the United Nations to respond to a major sudden onset natural disaster which overwhelms the national emergency relief infrastructure of the affected country. These instruments have been developed since the experience of the major earthquake in Armenia in December 1988, when many major shortcomings in the coordination of international relief were laid bare.

Fourteen international search and rescue (SAR) teams, with specialised gear for detection and excavation, search dogs and handlers, medical and first aid equipment, deployed at great speed to "X-land", struck by a simulated severe earthquake which had devastated a densely populated industrial area.

They tested modalities of cooperation and operating procedures to save the "victims" of the disaster, operating on more than thirty "damage sites" of different kinds and levels of difficulty, specially prepared over the three months leading up to the Exercise.

More than 150 observers from military, civil defence and disaster relief bodies from nearly 40 countries and organisations attended the exercise, which involved more than 2,000 people, including national and international participants and support staff.

Following the guidelines laid down by DHA, a United Nations Disaster Assessment and Coordination (UNDAC) Stand-by Team was mobilised to travel to the site. Upon arrival, the UNDAC members carried out a rapid assessment of the damage caused, in cooperation with representatives of the "affected country". They established an On-Site Operations Coordination Centre, which brought together the specially trained UNDAC Stand-by Team, emergency management officials from the "affected country" and liaison staff from each SAR team.

The presence of many participants and observers from disaster-prone developing countries ensured that the skills and experience demonstrated will contribute to improving preparedness both nationally and internationally for sudden onset disasters. The purpose of the exercise was to promote better contacts among the international relief community and to create a realistic scenario for operational staff with the aim of further improving the existing disaster response capability and thereby achieving the ultimate goal of saving lives and alleviating suffering. ■

India, 30 September: At dawn, the earth heaves in Maharastra. More than 7,500 lives are lost in but a few seconds.

Nepal, 23 July: 1,000 people are killed by floods and landslides.

The Philippines, 6 December: Typhoons Lola and Manny strike the country. 351 people die.

During the same year, India was also the victim of floods and a cyclone. In all, more than 9,600 people died in Indian disasters in one year, making India the unwelcome winner of 1993's "tragedy award" for sudden disasters.

The list of dead for the year 1993 is long and heavy. The wrath of water and wind, earth and fire has once again taken its toll on the peoples of the planet.

The following list of disasters in 1993 is an incomplete one. To describe the full extent of the tragedies suffered would take far more space. These examples merely illustrate the natural upheavals which, from January to December 1993, rocked various parts of the world and sobered those who believe us to be masters of the elements. In these pages, we present: **When Nature Struck in 1993.**

When Nature

	Date Started	Affected Country/ Region	Disaster	Casualties (n/a - data not available)				Total populations affected	Amount of damage as reported to DHA
				Dead	Injured	Missing	Homeless		
1.	02 JAN	Fiji	Cyclone "Kina"	20	3	2	n/a	115,000	101,907,894
2.	03 JAN	Tuvalu	Cyclone "Nina"	n/a	n/a	n/a	200	n/a	n/a
3.	03 JAN	Solomon Islands	Cyclone "Nina"	3	n/a	n/a	40,000	80,000	20,118,904
4.	07 JAN	Bangladesh	Thunderstorms	31	n/a	n/a	n/a	750,000	n/a
5.	07 JAN	Mexico	Mudslides/Floods	27	n/a	n/a	1,000	4,500	20,000,000
6.	02 FEB	Indonesia - Java	Floods	85	n/a	5	4,000	37,000	47,000,000
7.	02 FEB	Philippines	Volcanic Eruption "Mayon"	77	9	2	63,000	108,000	3,158,536
8.	05 FEB	Yemen	Floods	38	n/a	n/a	32,585	32,623	312,000,000
9.	08 FEB	Iran	Floods	375	n/a	n/a	500,000	1,000,000	288,000,000
10.	12 FEB	Tanzania	Floods	54	34	0	2,900	201,513	6,000,000
11.	17 FEB	Zimbabwe	Cholera Epidemic	n/a	n/a	n/a	n/a	n/a	n/a
12.	13 MAR	Cuba	Tropical Storms & Floods	5	100	0	7,500	150,000	1,000,000,000
13.	14 MAR	Pakistan	Avalanches	36	n/a	n/a	n/a	n/a	n/a
14.	21 MAR	Pakistan/Afghanistan	Avalanches	85	30	n/a	n/a	n/a	n/a
15.	30 MAR	Vanuatu	Tropical Cyclone "Prema"	1	10	0	7,000	12,000	60,000,000
16.	01 APR	Ecuador	Rains/Landslides	70	n/a	n/a	n/a	5,631	122,000,000
17.	07 APR	Mongolia	Snowstorms	12	n/a	0	0	120,000	7,752,000
18.	15 APR	Eritrea	Hailstorms	4	16	n/a	15,659	16,000	5,164,820
19.	27 APR	Colombia	Floods	27	40	43	n/a	n/a	n/a
20.	05 MAY	Chile	Mudslides/floods	21	58	88	1,225	3,218	12,500,000
21.	09 MAY	Ecuador/Namibija Area	Torrential Rains/Landslides	n/a	n/a	n/a	n/a	n/a	n/a
22.	11 MAY	Argentina	Floods	n/a	n/a	n/a	n/a	n/a	400,000,000
23.	12 MAY	Tajikistan	Heavy Rains	0	0	0	53,000	60,000	163,000,000
24.	13 MAY	Bangladesh	Tornado	14	n/a	n/a	7,500	n/a	n/a
25.	14 MAY	Papua New Guinea	Tropical Cyclone "Adel"	15	6	0	2,600	23,000	650,000
26.	18 MAY	Jamaica	Floods	9	0	0	275	21,450	2,429,849
27.	24 MAY	Argentina	Earthquake	0	0	0	0	n/a	0
28.	27 MAY	Kazakhstan	Heavy Rains	17	n/a	0	12,700	n/a	58,000,000
29.	31MAY	Sri Lanka	Floods	8	n/a	n/a	n/a	145,600	n/a
30.	31MAY	Cuba	Floods	14	n/a	4	11,000	115,000	n/a
31.	01 JUN	Cuba	Neuromyelopathy Epidemic	0	49,500	0	0	49,500	n/a
32.	12 JUN	Papua New Guinea	Floods	5	n/a	3	29,000	46,000	1,000,000
33.	15 JUN	Afghanistan	Mudslides	83	n/a	n/a	1,000	1,300	n/a
34.	17 JUN	Russia	Floods	15	441	110	0	6,500	n/a

Struck in 1993

	Date Started	Affected Country/ Region	Disaster	Casualties (n/a - data not available)				Total populations affected	Amount of damage as reported to DHA
				Dead	Injured	Missing	Homeless		
35.	21 JUN	Bangladesh	Floods	28	n/a	0	50,000	3,207,056	n/a
36.	22 JUN	Iran	Earthquake	0	n/a	0	0	n/a	n/a
37.	26 JUN	Philippines	Typhoon "Koryn"	2	0	0	0	29,413	441,730
38.	07 JUL	India	Floods	1,690	n/a	0	n/a	150,000	12,101,666,700
39.	07 JUL	Pakistan	Floods	16	0	n/a	n/a	263,005	n/a
40.	23 JUL	Nepal	Floods&Landslides	1,048	268	786	55,000	535,500	200,000,000
41.	27 JUL	Bangladesh	Floods	162	n/a	n/a	n/a	11,559,536	n/a
42.	01 AUG	Sudan/Egypt	Earthquakes	3	20	0	0	n/a	n/a
43.	05 AUG	Ukraine	Floods	6	n/a	n/a	n/a	300,000	49,168,529
44.	07 AUG	Trinidad & Tobago	Tropical Storm "Bret"	0	0	0	200	n/a	n/a
45.	08 AUG	Guam	Earthquake	0	71	n/a	n/a	n/a	n/a
46.	10 AUG	Nicaragua	Trop.Storms "Bret"&"Gert"	13	0	24	n/a	126,225	n/a
47.	10 AUG	Venezuela	Tropical Storm "Bret"	96	586	5	4,000	5,500	2,000,000
48.	12 AUG	Guinea	Floods	0	0	0	3,500	7,540	140,000
49.	17 AUG	Belarus	Floods	0	0	0	0	103,428	n/a
50.	26 AUG	Philippines	Floods	5	n/a	n/a	n/a	258,080	2,600,000
51.	31 AUG	China	Dam Burst	290	336	80	15,000	16,000	27,000,000
52.	02 SEP	Honduras	Trop.Storms "Bret"&"Gert"&Floo	27	n/a	12	27,000	67,447	10,000,000
53.	08 SEP	Uruguay	Storms	0	0	0	n/a	2,000	0
54.	28 SEP	Mexico	Trop.Storm "Gert"&Floods	35	n/a	n/a	65,429	203,500	n/a
55.	30 SEP	India	Earthquake	7,611	n/a	0	100,000	170,000	7,916,700
56.	04 OCT	Philippines	Typhoon "Flo"	88	35	36	n/a	1,941,531	188,000,000
57.	13 OCT	Papua New Guinea	Earthquake	53	30	0	9,800	89,000	5,000,000
58.	24 OCT	Mexico	Earthquake	0	0	0	0	n/a	0
59.	03 NOV	Honduras	Floods	174	n/a	200	n/a	15,000	n/a
60.	29 NOV	Cuba	Floods	30	n/a	4	6,500	500,000	100,000,000
61.	30 NOV	Vietnam	Typhoon "Kyle"	144	476	0	55,000	1,000,000	14,200,000
62.	06 DEC	India	Cyclone	318	n/a	0	90,000	n/a	312,801,200
63.	06 DEC	Philippines	Typhoons "Lola" & "Manny"	351	718	80	365,671	1,432,850	64,000,000
64.	08 DEC	Vietnam	Typhoon "Lola"	71	20	0	10,000	500,000	16,700,000
65.	13 DEC	Costa Rica	Floods	5	1	4	n/a	38,477	980,000
66.	25 DEC	Malaysia	Floods	7	n/a	3	13,000	n/a	n/a
67.	28 DEC	Philippines	Typhoon "Neil"	118	30	140	n/a	1,483,990	68,000,000
68.	29 DEC	Sri Lanka	Floods	0	0	0	0	150,000	n/a

WATER AND WIND

Avalanches, Cyclones, Floods, Hurricanes, Landslides, Rains, Storms, Tornadoes, Typhoons

Water and wind often work together to shake our complacency. Cyclones combine thundering dounpours with tearing winds to rip trees from the ground, demolish buildings and turn creeks into raging torrents, which, whipped by high winds, can breach their banks and flood surronding land. In some parts of the world, hurricanes produce tornadoes, tightly-wound windstorms with terrible potential for destruction. For too many people, 1993 was the last time they witnessed the elements working in tandem.

AFRICA:

TANZANIA**, Floods	Feb. 12
ERITREA**, Hailstorms	April 15
GUINEA**, Floods	August 12
SOUTH AFRICA, Floods	Oct. 8

THE AMERICAS and the CARIBBEAN:

MEXICO*, Floods	Jan. 7
USA, CALIFORNIA, Floods	Jan.17
ARGENTINA, Floods	Feb. 9
BOLIVIA (N), Floods	Feb.18
CUBA**, Floods & Tropical Storms	March 13
USA, EAST COAST, Winter storm	March 13
ECUADOR, Rains/Landslides	April 1
COLOMBIA*, Floods	April 27
CHILE*, Floods	May 5
ECUADOR*, Torrential Rains/Landslides	May 9
ARGENTINA*, Floods	May 11
JAMAICA*, Floods	May 18
CUBA*, Floods	June 2
DOMINICAN REPUBLIC, Floods	June 4
USA, TEXAS, SW, Tropical storm	June 19
MEXICO/PACIFIC COAST	
Hurricane "Calvin"	July 6
USA, MIDWEST, Floods	July 8
TRINIDAD & TOBAGO*	
Tropical Storm "Bret"	Aug. 7
VENEZUELA*	
Tropical Storm "Bret"	Aug. 10
NICARAGUA**	
Tropical Storms "Bret" & "Gert"	Aug. 10
HONDURAS**, Tropical Storm "Gert"	Sept. 2
URUGUAY*, Hailstorm	Sept. 8
USA, MISSOURI, Floods	Sept. 27
COSTA RICA, Mudslides	Oct. 30
HONDURAS, Floods	Nov. 2
ECUADOR, Avalanche	Nov.10
USA, KANSAS CITY, Floods	Nov. 15
USA, HOUSTON, TEXAS, Tornado	Nov. 17
USA, ATLANTIC COAST	
Hurricane "Emily"	DATE???
CUBA*, Floods	Dec. 2
COSTA RICA**, Floods	Dec. 9-12
PANAMA, Floods	Dec. 13

ASIA and the PACIFIC:

BANGLADESH*, Thunderstorms	Jan. 7
INDONESIA, JAVA*, Floods	Feb. 2
YEMEN**, Floods	Feb. 5
IRAN**, Floods	Feb. 5

* = *Information Report*
** = *Situation Report*
N = *Notification*

IRAN, Floods	March 8
BANGLADESH, Hailstorm	March 21
CHINA, Tornado & Hailstorm	March 27
MONGOLIA**, Snowstorms	April 7
BANGLADESH*, Tornado	May 13
SRI LANKA*, Floods	June 1
PHILIPPINES*, Typhoon "Koryn"	June 26
HONG KONG, Typhoon "Koryn"	June 27
CHINA, Floods	July 1
INDIA*, NORTH, Floods	July 7
PAKISTAN*, Floods	July 7
NEPAL**, Floods	July 23
BANGLADESH*, Floods	July 27
PHILIPPINES*, Floods	August 26
BANGLADESH, Floods	Sept. 3
JAPAN, Typhoon "Yancy"	Sept. 3
INDIA, UTTAR PRADESH, Floods	Sept. 9 - 19
PHILIPPINES Landslide caused by downpour	Sept. 10
INDIA, BOMBAY, Floods	Sept. 23
PHILIPPINES*, Typhoon "Flo"	Oct. 4
IRAN, Floods	Oct. 5
VIETNAM, Floods	Oct. 6
JAPAN, Typhoon "Ed", (Lost power before it actually hit the island)	Oct. 6
SRI LANKA, Floods & Land/Mudslides	Oct. 8
PHILIPPINES, Floods & Tropical Storm "Flo"	Oct. 9
VIETNAM, Floods	Oct. 22
BANGLADESH, NORTH, Floods	Oct. 29
PHILIPPINES, Typhoon "Ira"	Nov. 1
PHILIPPINES, MT.PINATUBO Mudslides caused by rains	Nov. 9
IRAN, Floods	Nov. 11
IRAN, Floods	Nov. 14
VIETNAM* Typhoon "Kyle"	Nov23/24
THAILAND, Tropical Storm	Nov. 30
PHILIPPINES, Typhoon "Lola", Floods, Storms & Landslides	Dec. 6
INDIA*, Cyclone , Floods	Dec. 6
VIETNAM, Typhoon "Lola", week of	Dec. 7
PHILIPPINES, Typhoon "Manny"	Dec. 12
SRI LANKA, Floods	Dec. 19
MALAYSIA, Floods	Dec. 26
INDONESIA, Floods	Dec. 28

EUROPE:

TURKEY, Snowstorms	Jan. 18
CAUCASUS (NIS), Avalanche	Jan. 28
UZBEKISTAN (NIS), Floods	March 13
TAJIKISTAN** (NIS), Heavy Rains	May 12
KAZAKHASTAN** (NIS), Heavy Rains	May 27
RUSSIAN FEDERATION* (NIS), Floods	June 17
KAZAKHSTAN (NIS), Floods	July 15
UKRAINE** (NIS), Floods	August 5
BELARUS** (NIS), Floods	August 17
FRANCE, WESTERN COAST, Floods	Sept. 14
SOUTHEASTERN REGION	Sept. 23
ALPS	Sept. 25
ITALY, NORHTERN REGION, Floods	Sept. 25
SWITZERLAND, BRIG, Floods	Sept. 29
FRANCE, SE/VAUCLUSE, Floods	Oct. 1
ITALY, ROME/TUSCANY/UMBRIA Floods	Oct. 1
SCOTLAND, Floods	Oct. 8
SWITZERLAND, LUGANO, Floods	Oct. 11
UNITED KINGDOM, Floods	Oct. 14
ITALY, VENICE/COMO, Floods	Oct. 16
CROATIA, Floods	Oct. 22
PORTUGAL/MADEIRA ISLAND Fierce Storm	Oct. 29
FRANCE, CORSICA, Floods	Nov. 1
THE NETHERLANDS, Storms	Nov. 15
GREECE, ATHENS, Floods	Nov. 22
BELGIUM, Floods	Dec. 22
GERMANY, Floods	Dec. 26
NETHERLANDS, Floods	Dec. 26

OCEANIA:

FIJI**, Floods & Cyclone "Kina"	Jan. 2/3
TUVALU**, Cyclone "Nina"	Jan. 3
SOLOMON ISLANDS** Cyclone "Nina"	Jan. 4
VANUATU** Tropical Cyclone "Prema"	March 30
PAPUA NEW GUINEA* Tropical Cyclone "Adel"	May 14
PAPUA NEW GUINEA*, Floods	June 13
AUSTRALIA, VICTORIA, Floods	Oct. 7
PAPUA NEW GUINEA, Floods	Dec. 30

Photos DHA

AFRICA

Algeria

Landslide

Human toll: 13 dead and about 50 injured

In December, following heavy rains, a landslide swept away dozens of houses in the populous Ras El Ain area, a poor hillside neighbourhood of the western Algerian city of Oran. 130 houses were ripped up by the landslide, leaving many families with nowhere to go.

Eritrea

Hailstorms

Human toll: 4 dead, 15,659 homeless
Estimated damage: approximately US $5,164,820, 5,000 hectares of crops destroyed

On 15 April the port city of Massawa and surrounding villages were heavily damaged by hailstorms. Apart from destroying homes, the storm flooded vast tracts of plantations in the coastal areas, and cash and staple crops ready for harvest were totally wiped out. Approximately 20,000 tonnes of food aid stored in the port was completely soaked by the heavy rain and 20 per cent was ruined. In addition, a warehouse of the Eritrean Relief and Rehabilitation Agency collapsed and lost all the food stored for aid. In view of the extreme climate conditions (temperatures go up to 50 degrees Centigrade in summer) shelter and an adequate supply of drinking water were immediately needed for the survival of the affected population and to prevent the outbreak of diseases.

South Africa

Floods

Human toll: 5 dead, 5,000 families homeless

Following the worst drought this century, flooding from heavy rains in South Africa drowned at least five people and left thousands homeless in early October. The Umfolozi River in Natal burst its banks north of Richards Bay leaving more than 3,000 families homeless in the Transvaal region, but the worst-hit area was Carletonville's Khutsong township where more than 2,000 families lost their homes.

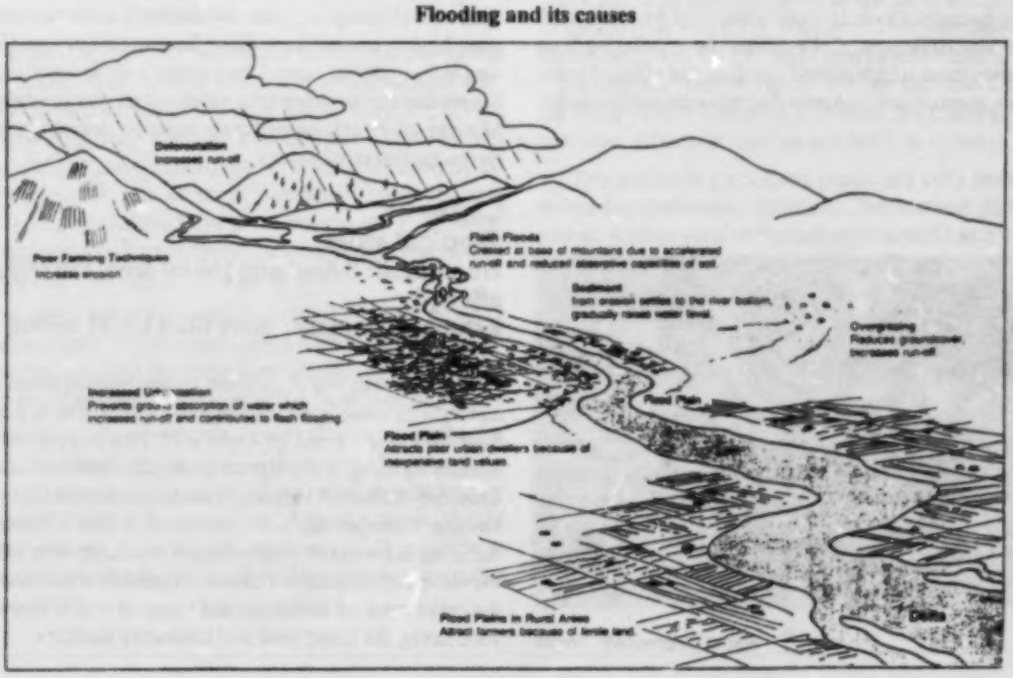
Tanzania

Floods

Human toll: 54 dead, 2,900 homeless, 200,000 affected
Estimated damage: more than US $6 million for rehabilitation alone

Beginning February, unusually heavy rainfall provoked flash floods, affecting 10 villages in the Lushoto and Korogwe districts of the Tanga region. Due to disruption and pollution of water systems, there have been outbreaks of disease including pneumonia and cholera.

Flooding and its causes


Deforestation
increases run-off
Poor Farming Techniques
increase erosion
Flash Floods
Crescent at base of mountains due to accelerated run-off and reduced absorptive capacities of soil
Sediment
from erosion settles to the river bottom, gradually raises water level
Overgrazing
Reduces groundcover, increases run-off
Increased Urbanization
Prevents ground absorption of water which increases run-off and contributes to flash flooding
Flood Plain
Flood Plain
Attracts poor urban dwellers because of inexpensive land values
Flood Plains in Rural Areas
Attract farmers because of fertile land
Delta

Source: "Mitigating Natural Disasters", DHA

THE AMERICAS AND THE CARIBBEAN

Argentina

Floods

Human toll: 1,200 evacuated, 16,000 affected (Reuters)
Estimated damage: US$400 million, 4 million hectares and 40 towns flooded (Reuters)

When the Salado River in Buenos Aires province burst its banks, an area the size of the Netherlands was submerged under water. The area, though not heavily populated, is the country's richest in agriculture and livestock. Since April, unseasonably heavy rains had been falling in the upper portions of the Salado. The river swelled to the highest levels ever recorded before finally overflowing.

Colombia

Floods

Human toll: 27 dead, 800 families affected and 2,300 families at risk

On the early morning of Monday 26 April, people were drowned or reported missing in a sea of mud and rocks when the Taparto River burst its banks in a remote mountainous region of northwest Colombia, sweeping away simple peasant dwellings of wattle and daub and adobe and triggering landslides. The flash floods during the night affected the municipality of Andes, located 200 km northwest of Bogota. Colombia had been suffering from unusually heavy rains which caused flooding and affected some 16,000 people, most of them in Amazonas province and the eastern plains.

Photo Colprensa/F. Trujillo

Mudslides

Human toll: 75 people dead

A rain-swollen La Desmotadora stream swept mud through Dabeiba on the evening of 20 December, injuring 40 people and demolishing 30 houses. About 200 people were left homeless. It was recorded as the worst disaster in the region in 1993. The mudslide caught residents by surprise, sweeping everything in its path. The survivors looked at the remains of their shattered brick homes and saw only rocks, tree limbs and mud, local television reported.

Four days later, heavy rains sent earth, mud and rocks crashing down a mountain into the suburb of Carolita in Manizales, about 150 km west of Bogota, destroying 13 homes and damaging 200 others.

Costa Rica

Floods

Human toll: 5 dead, 38,477 affected, 1,655 evacuated

Early warning and preparation made all the difference when from 9 to 12 December continuous heavy rains caused floods and landslides in Costa Rica's Atlantic region. Without the flood monitoring, warning and alert system, as well as immediate activation of a national emergency plan, the death toll could have easily been much higher. Landslides and high floodwater destroyed houses, as well as 75 or 80 per cent of the country's agricultural production. Severe damage to the drinking water system was inevitable and the Ministry of Health immediately initiated decontamination and reconstruction programmes.

Cuba

Tropical storm

Human toll: 5 dead and 160 injured, 150,000 persons affected
Estimated damage: more than US $1 billion

On 13 March one of the most violent tropical storms in recent history with winds up to 160 km/h and waves of up to eight metres high hit Cuba. Eight of Cuba's 14 provinces were affected, devastating the agricultural production and installations and severely disrupting the island's sugar harvest. In Havana, the United Nations Disaster Management Team witnessed scenes of severe human suffering as a result of sea flooding in streets for over 30 hours. At the maternity hospital in Havana, all patients were evacuated and the entire stock of antibiotics and vaccines was lost as well as all food stores, the blood bank and laboratory facilities.

Floods

Human toll: 14 dead, 11,000 homeless, 40,000 evacuated, 115,000 affected (May), 30 dead, 6,500 homeless, 50,000 evacuated, 500,000 affected (November)

Estimated damage: US $140 million as of 17 December (Reuters)

Three days of torrential rain, from 31 May to 2 June in the eastern provinces caused severe flooding. Again from 23 November Cuba found itself in over its head as three continuous days of heavy rains caused severe flooding and destruction. This was the worst disaster to hit Cuba since Hurricane Flora in 1962, forcing the country to appeal for international assistance. The floods were concentrated in the eastern provinces of the country where development is at a lower level. Household stocks, livestock and hundreds of tons of food crops, as well as beans, maize and potato seed stocks were wiped out. Future production of basic foods - the livelihood of these people - was put in grave danger.

Ecuador

Landslide

Human toll: 72 dead, 5,631 affected

Estimated damage: More than US $122 million

At about 9 p.m on Monday 29 March 1993, a vast landslide occurred abruptly, affecting the area of the left flank of the Paute valley, in the sector known as La Josefina, situated just downstream from the confluence of the Paute and Jadàn rivers. The volume of material dislodged, some 30-40 million cubic metres, formed a natural embarkment almost a kilometre wide and with a maximum height above the river bed of about 85 metres.

The economic consequences of the landslide were very heavy. Considering the hazards present in the area, the thermal power plant "El Descanso" should be moved to a safer place. This recommendation indicates the extent of risk presented by landslide hazards in this region. On 2 January 1990, there had been another landslide of 3.6 million cubic metres in northern Ecuador, which blocked the River Pisque.

Ecuador: landslides played havoc with a country's power supply

On 29 March a giant landslide occurred abruptly in the sector known as La Josefina, blocking the River Paute. The volume of material dislodged, some 30-40 million cubic metres of soil caused an emergency situation whereby a natural dam of 85 metres high and 1,000 metres long was created down river. Behind this dam, the watershed of the Paute River generated within a month a lake of almost 200 million cubic metres.

The development of a lake of this size caused disasters in the upper river, where the entire infrastructure was heavily damaged due to the inundation, including a Pan American Highway, railroad and bridges. The thermal power plant of El Descanso was entirely inundated by 20 metres of water. Its stock of petroleum products was destroyed and polluted the area downriver. It is still in great danger of being flooded again and it is recommended that this plant be rebuilt on a safer site.

The rapid rise in the water level caused the erosion of the natural dam, which eventually overflowed. The wave it produced caused damage downstream to the town of Paute and the Paute Hoydroelectric Power Station.

The Paute Hydroelectric Power Station exploits the flow of the River Paute, the waters of which descend some 700 m in a distance of 13 km in the sector known as Cola de San Pablo. It comprises the Amaluza Dam of the arch-gravity type, 170 m high and 420 m long. It represents practically 80 percent of the power generated in the country.

The forced draining of the La Josefina natural reservoir caused serious damage in the valley of the Paute. Nevertheless, because the evacuation of the population had been well prepared, the violent drainage did not cause any loss of life or injury.

The topography and geological conditions in Ecuador are such that landslides as large as the La Josefina landslide may recur in the future. The river bed must be stabilised to reduce the risk of new landslides and flooding in the region. The geological and geotectonic situation in the Paute Valley indicates that there are many points, old and new, where landslides are likely to occur.

The available geological maps are very general and do not depict the exact situation. There are no geotectonic maps. A clear view of the existing hazards and threats in the areas concerned is a pre-condition for carrying out measures to reduce the natural hazards. The priority for the Paute Valley is to produce maps of natural hazards and risks. An observation network capable of identifying shifts in good time should be developed.

In areas where there have already been surface movements, it is worthwhile installing what is known as a slope indicator, the purpose of which is to monitor the behaviour of deep points of unstable zones. Acute danger of landsliding may also be monitored acoustically, and localities of high geological risk should be monitored by an early warning system.

Honduras

Tropical Storm Gert

Human toll: 27 dead, 12 missing, 67,447 affected, approximately 40,000 evacuated
Estimated damage: US$ 10 million

Due to continuous heavy rainfall following Tropical Storm Gert, the Mosquitia region in northeast Honduras suffered from severe flooding in September. This region covers 20,300 square kilometres including continental land, extensive lagoon systems and canals. The local infrastructure is the poorest in the country. Honduras faced severe nutritional problem because family and commercial crops were lost and no local food production was expected over the next six months due to the continuous rainfall. Important cultivation areas for bananas, the principal export, were also severely inundated.

Floods

Human toll: 174 dead, a further 200 missing as of 9 November 1993, 15,000 affected

Beginning November, rain-swollen rivers burst their banks, ravaging the northern region of Honduras. Many of the victims were asleep when high waters came rushing down the Lean and Aguan river valleys in the states of Atlantida and Colon, where a state of emergency was declared by the government. The flooding was caused by a combination of heavy rains and heavy deforestation in mountainous parts of this zone which has extensive agricultural and cattle-raising activities. The high degree of deforestation aggravated the situation, leaving nothing to check the rainwaters as they rushed down the mountains toward the rivers.

Jamaica

Floods

Human toll: 9 dead, 4,290 families affected, 1,600 persons evacuated
Estimated damage: US $2,429,849

Heavy rainfall in Jamaica from late April to early June caused severe flooding in the north-eastern part of the country. Agriculture was significantly affected: 13,000 farmers reported crop losses. Following an increase in the number of gastroenteritis cases, the Ministry of Health issued warning and advice regarding drinking water. Training and public awareness campaigns were also foreseen.

Mexico

Hurricane Calvin

Human toll: 19 dead, 20,000 affected in the states of Oaxaca and Veracruz (Reuters)

A powerful hurricane barrelled up Mexico's west coast early July, driving tens of thousands of Mexicans from their homes. Fierce winds and rain pelted western Mexico as Hurricane Calvin moved up the Pacific coast. It swept the coastal states of Michoacan and Colima with winds of up to 165 km/h and gusts of up to 190 km/h. Entire villages in the poor southern state of Oaxaca, which had received up to 21 cm of rain on some days, were washed away and many roads were impassable, hampering efforts to provide food and assistance. In the two states of Oaxaca and Veracruz ,19 rivers overran their banks.

Since seasonal rains began, 37 people have been reported killed and an estimated 40,000 Mexicans have lost their homes. State of emergency has been declared in 10 states, covering about a third of Mexico.

Hurricane Gert

Human toll: 35 dead (Reuters), 65,429 homeless, 203,500 affected

Hurricane Gert struck the Gulf Basin in eastern Mexico on 21 September, with record rainfall for this century. The Panuco River Basin, which coyers several states, was declared an emergency zone. The Panuco, a large river that flows down from the eastern Sierra Madre mountain range into the Gulf of Mexico near Tampico, rose more than two metres.

Mudslides

Human toll: 27 dead, 1,000 homeless, 4,500 affected
Estimated damage: US$ 20 million

Heavy rains provoked mudslides and the collapse of rickety homes in the northern city of Tijuana, bordering California, on 7/8 January. Thousands were left without electricity or drinking water and the most affected areas were poor neighbourhoods with

Flood damage in Jamaica

unpaved roads perched on steep slopes. The rains tossed cars like toys in raging torrents of water and buried shanty-town homes almost up to their roofs in seas of mud

Nicaragua

Tropical Storms Bret and Gert and rains

Human toll: 13 dead, 126,225 affected
Estimated damage: US $5,570,250 (Reuters)

Following the passage of Tropical Storm Bret on 10 August the Atlantic coast of Nicaragua suffered severe flooding. The government declared a disaster area in the North and South Atlantic regions and the region of Tisma in the department of Masaya. Continuous rains and floods rendered the affected areas inaccessible.

Many regions hit by Cyclone Bret were again ravaged on 14 September by Tropical Depression Gert which lashed rivers to overflowing and flooded villages. Exceptionally heavy rains continued after the departure of Tropical Depression Gert on 17 September, affecting 11 departments. Several areas including Managua recorded 20 per cent of average annual rainfall in two days. Economic losses in agriculture, stock and poultry are feared to be high.

USA

Storms

Human toll: 14 dead

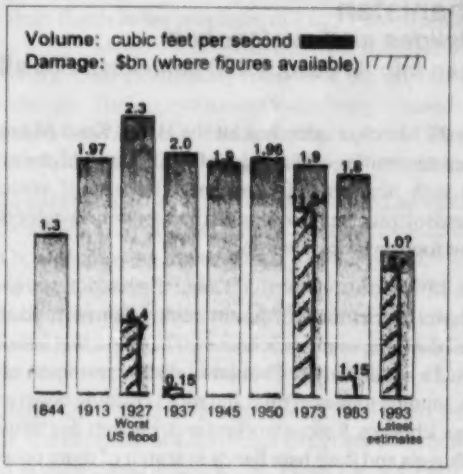
After enduring six years of drought, southern California was drenched by record rainfall at the beginning of the year. In January floods, waters and mudslides battered southern California after a fierce winter storm, forcing thousands of people out of their homes. A state of emergency was put in effect in Los Angeles, Orange and Santa Barbara counties. Again in March, an extraordinary late winter storm system dumped 30 centimetres or more of snow on some parts of the Deep South and spawned 50 tornadoes in Florida. A state of emergency was declared in Georgia, Connecticut and New Jersey. It was the worst storm since Hurricane Andrew.

Floods

Human toll: more than 50 dead, more than 50,000 people affected
Estimated damage: US $10 billion, 15,000,000 acres of farmland in 8 states flooded

The summer of 1993 will long be remembered for the worst natural disaster ever to occur in the United States, the flood which inundated America's heartland, the Midwest. The Mississipi River, beloved by readers of Mark Twain, became an enemy as heavy rains caused it to go on a summer-long rampage. The "Father of Rivers" links 31 states from the Appalchians to the Rocky Mountains, moving nearly two billion tons of goods a year, tying together markets from 41 per cent of the US. It has brought transportation and prosperity to many cities from St. Louis to New Orleans. More than 2,000,000 people live around its banks. The Great Flood of 1993, fed by record-breaking rainfall in July, peaked at the beginning of August at 15 metres after battering sandbag walls and permanent levees protecting towns and cities.

A BRIEF HISTORY OF MISSISSIPPI FLOODING



The Missouri is only 40 km shorter than the Mississippi. The two rivers course through the heart of the Midwest, where the Great Flood of 1993 swamped eight states.

The floods victims will need time to recover. But there are questions to be answered before the work proceeds. Do they want to rebuild? Do they want to expand the floodplain?

ASIA AND THE PACIFIC

Afghanistan

Mudslides and avalanches

Human toll: 83 dead, 1,000 homeless,1,300 affected

On 21 March, avalanches hit the Hindu Kush Mountains in Afghanistan, cutting off the Salang Pass, the main highway linking Kabul with northern Afghanistan. Hundred of vehicles and thousands of travellers were trapped in extremely savage conditions without food or proper clothing.

On 15 June, heavy rains in Kabul triggered mudslides in the Chindawal district south of the city centre. Tons of mud and rocks crashed down on mud brick houses. The storm that lashed Kabul loosened a hillside in the Chindawal district just south of the city centre, sending tonnes of mud and rocks crashing down on flimsy mud brick houses. Rescue workers and residents dug through mud with shovels and their bare hands in search of more people.

Bangladesh

Floods

Human toll:190 dead, 14,676,593 affected

From June until the end of September, torrential rains and storms battered the country. Flash floods and landslides flattened houses, washed away bridges and railway tracks. Storms caused boats to capsize and sink, and tens of thousands of villagers were cut off by flood waters.

In July and August excessive monsoon rains all over the country, coupled with the onrush of water from upstream Indian rivers, caused serious deterioration of the flood situation in Bangladesh. Worst affected by the flooding was the island of Sandwip in the Bay of Bengal, from which 200 families had to be evacuated. The Dhaka weather office recorded 140 mm of rainfall in 24 hours.

China

Floods

Human toll: 3,000 dead, 120 million affected in ten provinces
Estimated damage: US $10.86 billion, 11.5 million hectares flooded (Reuters)

China experienced a violent summer. Storms, typhoons and floods battered the country and, for two months, millions of Chinese people lived through terror and turmoil. In town after town, village after village, all along the Yangtze and Huai rivers, people were stranded, crops completely flooded, telecommunications destroyed, and homes ruined.

As crops in the south were being destroyed by too much water, those in the north were dying for lack of it. Millions of farmers across northern China were battling a severe drought which threatened some 5.6 million hectares of crop-land in key winter wheat producing areas.

India

Floods

Human toll: 1,690 dead, 128 million affected
Estimated damage: US $12,101,666,700

Devastating monsoon rains from 7 July caused widespread flooding in the northern states of India, with Punjab, Haryana, Himachal Pradesh, Chandigarh, West Bengal, Gujarat, Jammu and Kashmir, Assam, Rajasthan and Madhya Pradesh being hardest hit. Flash floods, landslides, overflow of rivers and irrigation canals inflicted a high death toll and severe damage to housing, agriculture and infrastructure. Millions of people had to take refuge in emergency camps. The Army flew round-the-clock relief flights to drop food, medicines and water purifying tablets to people marooned by water polluted by the rotting carcasses of drowned livestock. In India's granary state of Punjab, three million people were forced to abandon their homes.

The savage monsoon floods severely affected the Haryana and Himachal Pradesh states and the tea and oil-producing northeastern state of Assam. In Punjab, swirling flood waters from swollen rivers and canals submerged standing crops, damaged grain and commodity stores, swept away bridges, breached roads and destroyed a vast irrigation infrastructure. One million hectares, a fifth of Punjab's total agricultural land, were submerged. Flood waters breached the roads and blocked the movement of trucks carrying tea and petroleum products in Assam where it had rained 31.4 cm in 24 hours.

South Asia's worst floods in decades killed more than 4,000 people in three of the world's poorest nations. Unusually ferocious monsoon rains swelled rivers across the region, causing widespread floods that had inundated half of Bangladesh, devastated Nepal's lowlands and ravaged vast tracts of northern and eastern India.

Cyclone

Human toll: 318dead, 90,000 affected
Estimated damage: US$ 312,801,200

On 4 December 1993, a severe cyclone hit southern India causing extensive damage in Tamil Nadu and the Karaikal region of Pondichery. The cyclone, packing winds of up to 120 km/h, ripped up trees and blew down telephone wires. Most of the victims were killed when their houses collapsed under the combined onslaught of wind and rain.

Apart from earthquakes, the notable geological and geophysical disasters which affect India are landslides and avalanches. Landslides are a frequent and recurring phenomena in the various hill ranges of India. Every year many landslides cause extensive damage to roads, buildings, forests plantations and agricultural fields. Damage may be partial or total requiring costly remedial measures to restore damaged facilities to the original or usable state. A large part of northern India experiences snow during the winter. While snow melt provides 30-50 per cent of the annual water yield, snow avalanches pose a potential danger to people and property. In some cases the land communication system becomes disrupted and life comes to a standstill in the affected areas. Snow avalanches of the Himalayas are known for their massiveness and great destructive potential. Broadly speaking, an area of about 2,000,000 square kilometres of Jammu and Kashmir, Himachal Padesh and Uttar Padesh is exposed to avalanche danger.

Iran

Floods

Human toll: 407 dead, 146,171 families affected, 79,000 families homeless
Estimated damage: US $350-400 million, 250,000 hectares flooded

Due to unprecedented heavy rains, floods struck in February, March and April, killing hundreds of people and causing heavy damage to farmland, livestock, houses and roads in 12 provinces, 50 cities and 7,000 villages.

The country was first severely affected by five days of rainfall at the beginning of February. Heavy rains started again on 6 March, causing flash floods in the provinces of Fars, Yazd, Luristan and Boir. The water reservoirs at Drozdan Dam (Fars) and at Dez Dam and Abbaspor Dam (Khuzistan) filled after the unprecedented continuous rains. The large volume of water being released caused floods and serious additional damage to agriculture. The flood-waters receded in April, increasing damage estimates.

In the upper watershed areas, floods occurred suddenly and without warning. They affected the small but valuable land along the river beds, destroying settlements, agricultural land, roads and bridges as a result of the impact of the fast-flowing water. In the delta, floods occurred days and weeks after the rains, giving plenty of time for early warning. They affected a very large area; however, more than 95 per cent of the completely flat terrain is arid desert.

Several hydro-electric dams may have suffered from the floods. However, the expertise of the foreign designers and contractors involved in their construction in the 1970s has not been available over the past 14 years and catastrophes are possible in the future.

Iran: a land of floods and droughts

It is postulated that, about 3,000 years ago, the ancient Persians transformed an uninhabitable desert into a garden through the invention of the **qanat**. This ingenious system supplied them with water during the years of average precipitation and also guaranteed a reasonable flow during the long droughts which could have otherwise devastated the Persians. While an upstream farm recharged a qanat, the discharged water from the same qanat irrigated a downstream farm, ad infinitum. About one half of all the qanats of Iran have dried up. Should these life-giving vessels stop flowing, the re-desertification of many reclaimed wastelands is imminent.

Since 1983 the Research Institute of Forests and Rangelands in Shiraz has been operating a pilot project on Desertification Control through the spreading of flood water. The aim of this project is to utilize the abundant water available during annual floods and provide a valuable means of flood prevention by drastically reducing the amount of water reaching the lower parts of the river. In the watershed area, simple canals and dams, constructed with the help of bulldozers, take up substantial amounts of water which would otherwise flow downhill without being used. These mineral-rich waters allow the growth of Eucalyptus trees and other drought-resistant plants.

Improper land use and drought are the principle agents of desertification. Reduced groundwater discharge, a variation of drought, is mainly due to over-exploitation of a limited resource. Since the problem is man-made, man has the power to control desertification through proper utilisation of land and water. This may be partially achieved by harnessing the flash floods common to most deserts. Artificial groundwater recharge, production of food, feed fibre, fuelwood and flood abatement are some of the advantages of floodwater spreading.

Droughts due to low rainfall recur sometimes a few years in succession. In a country like Iran, which produces a substantial amount of its food and feed on six million hectares of dry-farms and 90 million hectares of rangelands, this can mean distress and, in extreme cases, disaster. It is ironic that these rainless periods are usually interrupted by flood-producing downpours which devastate the drought-stricken people and their starving herds.

The monsoon, which provides about 10 per cent of the annual precipitation in Baluchistan, brings vital rains to southern Iran and produces destructive and, at the same time, benevolent surface runoffs that replenish numerous cisterns. These tanks provide the only source of fresh water for a large number of communities across this region. Were it not for these events the land could support far fewer people due to the total lack of perennial streams and groundwater of good quality which could satisfy their water needs. It is, therefore absolutely essential to accept the twin and alternative curses of drought and flood as the rule of nature and utilise floodwater to mitigate both.

Photo DHA

Nepal
Floods and landslides
Human toll: 1,048 dead, 553,000 affected
Estimated damage: US $200 million, 37,309 hectares flooded

In mid-July, floods and landslides brought on by five days of torrential rains affected eastern and central Nepal, particularly mountain and hill areas, Kathmandu Valley and the Terai lowlands. These devastating floods are considered the worst in 40 years and the worst natural disaster to strike Nepal since an earthquake in 1933. Mass burials followed the floods in order to avoid the spread of cholera and other diseases. The Kulekhani hydro-electric power station and the Bagmati barrage in the Sarlahi district were severely damaged. A dam under construction at Manohari in the Makawanpur district washed away. The destruction of many villages left thousands of people without shelter and 65 relief camps were set up in Chitwan, Rautahat, Sarlahi, Siraha and Makawanpur districts to serve more than 50,000 persons.

Japan
Typhoon Yancy
Human toll: 37 dead, 30 missing, 86 injured

On 3 September, Typhoon Yancy, one of the most powerful storms to hit Japan since World War Two, unleashed a huge mudslide which swept across the western part of Japan's main island of Honshu after making a brutal landfall on the southern island of Kyushu. It triggered 210 landslides, demolished more than 1,200 homes and paralysed most rail, sea and air links in southern Japan. Yancy was the 13th in a series of powerful storms that tormented Japan during an unusually wet, cold summer. Kyushu was particularly hard hit. Heavy rains in July and August triggered dozens of floods, killing at least 87 people.

Mongolia
Snowstorms
Human toll: 12 dead, 120,000 affected
Estimated damage: US $10 million in livestock losses alone

Unseasonably low temperatures and heavy snowstorms hit an area of 150,000 square kilometres in western Mongolia from 14 March, resulting in up to 160 centimetres of snow on the ground. The snow was not likely to melt before mid-May, and the affected population could not be reached by road or even by helicopter. A further deterioration of the situation resulted from a sharp drop in night-time temperatures, which reached -40 degrees Centigrade, covering much of western Mongolia under a layer of ice.

Nepal: disaster-prone

Nepal is divided into 3 regions running from east to west: the mountains, the hills and the Terai Plains. It is one of the most disaster prone countries due to its fragile topographical features, and disasters are becoming more common. They are being induced by a number of human activities such as the development of an infrastructure, deforestation, cultivation of fragile marginal lands and unwise consumption of energy. The Himalayan mountain range of Nepal has been identified as very young and highly susceptible to ecological hazards. Earthquakes, floods, landslides, volcanic eruptions and droughts are experienced in the country frequently, and the precarious national economy suffers under their impact. The loss of life and damage to property inflicted by natural disasters are constantly high and heavy.

Pakistan
Avalanches
Human toll: 36 dead including 12 children (14 March) and 85 dead (24/25 March)

On 14 March, avalanches loosened by recent rains roared down from a glacier and swept away 20 houses in a village in Swat district of North West Frontier Province. On 24 and 25 March, avalanches hit mountain villages in northern Pakistan.

The Philippines

Typhoons

Human toll: more than 600 dead, 213 missing, 2,939,300 affected
Estimated damage: more than US $320 million

26 June

Typhoon Koryn hit the northern Philippines, killing at least seven people and unleashing mudflows which forced more than 18,000 people to flee their homes. A wide torrent of mud and rocks from Mount Pinatubo volcano filled the Sacobia river.

4 October

Typhoon Kadiang (international code name Flo) hit northern Luzon, triggering floods, mudflows and landslides that killed 88 people. 1,678 houses were totally destroyed and a total of 384,802 families (1,941,531 people) were affected in 18 provinces. The damage was estimated at approximately US $188 million.

5-11 December

The Philippines was struck by Typhoons Lola and Manny. On 6 December Typhoon Lola made 43,426 people homeless and affected 327,755. Typhoon Manny hit the country on 10 December, affecting some of the same areas that had been affected by Typhoon Lola.

The combined effects of these typhoons caused the deaths of 245 people, while 524 were injured and 66 remained missing. A total of 994,478 people were affected, and 164,800 rendered homeless.

25 December

Typhoon Nell struck north-eastern Mindanao, the whole of Visayas and then exited through Oriental Mindoro, bringing gusty winds and heavy rains and killing 45 persons. It resulted in many towns and communities being isolated.

Cyclones, typhoons and hurricanes: three names for nature's fury

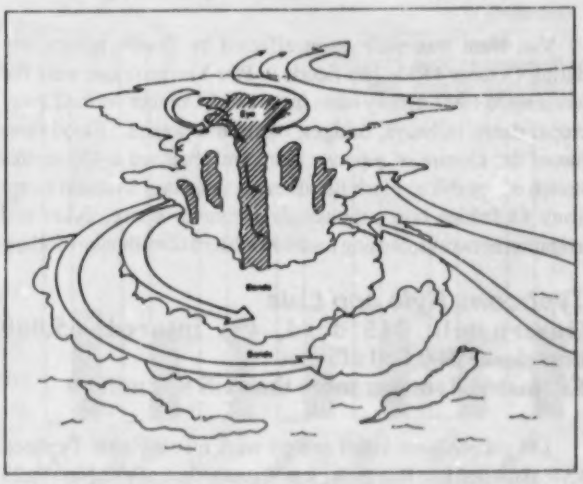
Typhoons are most likely to occur in the intertropical zones and especially in the Pacific Ocean, the Indian Ocean and the Caribbean Sea. They are fortunately almost unknown in Europe. The terms hurricane, cyclone and typhoon refer to the same catastrophic phenomenon - a severe depression that causes high and very destructive winds. "Hurricane" is derived from "huracan", a word in a Carribean dialect. "Typhoon" comes from the Chinese word "taifeng", and describes the same phenomenom encountered around the coasts of the Far East, while "cyclone" is derived from Greek and is commonly used in the West.

Cyclones appear only over warm seas (above 27 degrees Centigrade). The presence of a warm sea is essential to provide the massive evaporation which is necessary for a cyclone to develop. The cyclone's energy is released as rain or generates furious winds to fill the central depression (the "eye" of the cyclone). "Tropical storms" are those accompanied by winds of less than 120 km/h, while the term "cyclone" is reserved for storms with higher wind-speeds.

Some regions are far more vulnerable to cyclones than others. Cyclones are extremely rare off the coasts of Europe and the west coasts of Africa, America and Australia. They are frequent in the Atlantic triangle formed by the Azores, the Cape Verde islands and the Antilles. Most cyclones are accompanied by deluges which last hours or days, transforming even the quietest stream into a raging torrent. In 1906, 2.43 metres of rain fell in Jamaica in four days (Paris has an average rainfall of 0.63 metres per year).

How a cyclone forms

An atmospheric disturbance forces warm moist air of the prevailing Easterlies to rise. As the air cools, water vapour condenses and falls as rain; heat energy is released, and winds intensify.



The storm grows as air spirals inwards, rises, and is exhausted from the top by high-level winds. Surface air converges at an increasing rate towards the low pressure at the storm centre. High winds, heavy rain, and storm surges occur as the storm becomes a mature cyclone.

Viet Nam: water, water everywhere

Viet Nam is endowed with one of the most abundant water resources in the world. This abundance makes water disasters the most serious events affecting the country. The worst of these water disasters are caused by typhoons that raise sea levels many metres and send storm surges up estuaries to inundate valuable croplands. Further, these typhonic rains create floods which threaten devastation to millions of households.

On average, four to six typhoons reach Vietnam each year, causing regular and substantial suffering, loss of life and economic damage. Both the broad Red River and Mekong Deltas and the narrow connecting coastal strip are prone to flooding from monsoon rains and typhoon storms. The remaining three-quarters of the country is mountainous and suffers from flash flooding. As a result, over 70 per cent of the population of Viet Nam and most of the infrastructure is at risk from water disasters.

One reason that water disasters are so serious is that Viet Nam has developed as a nation by exploiting the low coastal lands for wet-rice agriculture. Although the Vietnamese people have adapted their culture to these events over the centuries, the problem has been aggravated in recent years by a number of changes: environmental degradation, rapid population growth and the degradation of the existing extensive system of dykes.

Flooding carries a heavy annual cost for north Viet Nam. In recent studies for the UNDP, it was estimated that the average annual losses in the Red River Delta and along the Central coast could reach substantially more than US $130 million. It was found that the average annual damage from flooding for the area protected by the dyke around Hanoi alone amounted to much more than US $50 million per year.

In Viet Nam, where there is only limited social security, the social consequences of a disaster are even more profound than in developed countries. Vietnamese households suffering a loss of household property will frequently also have their crops destroyed, or will suffer a loss of employment or livelihood. Many people in Viet Nam who have suffered a water disaster already know that the next year is likely to bring them a repeat. This constant apprehension must weigh heavily.

Viet Nam

Floods

Human toll: 80 dead

Viet Nam was once again affected by floods, particularly during October 1993. The floods in Phu Yen province were the worst since 1902. Heavy rains from 1 to 5 October washed away crops, dams, railways, bridges, roads and houses. Floodwater forced the closure of a power plant and smashed a 400-metres stretch of sea dyke. Flash floods in north-central Vietnam swept away 45 fishing boats, thousands of tonnes of rice, dykes and irrigation networks, causing losses worth tens of millions of dollars.

Typhoons Kyle and Lola

Human toll: 215 dead, 496 injured, 65,000 homeless,1,500,000 affected
Estimated damage: more than US $30 million

144 people were killed and 59 were missing after Typhoon Kyle slammed into four provinces in south-central Viet Nam on 23 November. Kyle's winds of more than 120 km/h also destroyed at least 17,000 hectares of crops, washed away hundreds of fishing boats and damaged irrigation systems and high-voltage electrical poles. Most rail links between north and south Viet Nam were cut.

Typhoon Lola hit coastal areas in Viet Nam in the evening of 8 December with gusts up to 130 km/h. Heavy rains and floods killed 71 people and damaged more than 20,000 hectares of crops.

Yemen

Floods

Human toll: 38 dead, 640 families homeless, 1,000,000 affected
Estimated damage: US $312 million

Torrential rains between 5 and 8 February caused flash floods in the Governorates of Aden, Lahej and Abyan. In just three days, floods completely isolated the city of Aden. One million people, cut off and alone in the wet, cold dark, were unaware that anyone in the outside world would ever come to their rescue. They had no way to escape their desolate situation. The airport was closed, power supplies and telephone lines were knocked out, hospitals and medical stores containing essential drugs were destroyed. The sewage system collapsed, leaking 11,000 cubic meters of waste each day into the streets of highly populated areas, mixing with stagnant water. Fears of malaria and cholera epidemics added to the risk.

EUROPE

Belarus

Floods

Human toll: 103,428 affected
Estimated damage: US$100 million, 267,000 hectares flooded, 10,000 houses damaged

Toward the end of July, the country of Belarus received three times the average monthly rainfall. Consequent severe flooding affected the southern parts of the Brest, Gomel and Minsk regions. The flooding by the Prypyat river did significant damage with a long-lasting effect on the economy of the country. The destruction of the pasture and crops which were due for harvest and contamination of groundwater wells aggravated the situation.

France

Floods

Human toll: at least five dead, more than 7,000 evacuated
Estimated damage: US$400 million, more than 30,000 hectares flooded

France, which from 1980 to 1992 suffered an historic drought that left groundwater reserves exhausted, was hit by unprecedented flooding in 1993. Most of the floods were caused by unexpected precipitation. Rivers cope with normal rainfall very well, but can burst their banks under the onslaught of a sudden downpour.

Most of the regions affected were overwhelmed by the extent of the bad weather: road bridges were destroyed, long lengths of road were washed away, large areas of crop-land flooded and villages left cut off, with no drinking water or electricity.

In many cases, dykes were not kept under proper watch and breaches were inadequately plugged. The local inhabitants formed patrols to scan dykes for the slightest leak. Preventive action of this kind would unquestionably have spared the area irreparable damage.

Switzerland

Floods

Human toll: one dead, 1,500 evacuated
Estimated damage: US $250 million

On 24 September, the Saltine river overflowed, submerging the town of Brig in the canton of the Valais beneath its muddy waters. The centre of the town was completely ravaged by the flood, which filled houses with mud, stones and tree-trunks. Most of the shops were also destroyed. There was over US $700,000 damage, requiring four to five months to expunge the major traces of the disaster.

After further constant rain, Lake Maggiore flooded the streets of Locarno on 2 October. This caused US $75 million damage and forced 1,500 people to leave their homes. A study of how to provide effective protection against the forces of nature is in progress and

France must learn to cope with floods

The 1992 tragedy of Vaison-la-Romaine is fresh in French minds. The waters of the Ouvèze swept through the beautiful medieval city in south-east France with the loss of 50 lives. Barely a year later, the weather was even more savage, not only in the south but throughout the country. Trains were derailed, motorists drowned, landslides occurred, houses collapsed and electricity and water supplies were cut. The damage bill for September's and October's floods in the southern half of France and November's floods in Corsica is expected to be nearly US $400 million. An officially recognized "state of natural disaster" was proclaimed in over 20 "départements" and 1,000 "communes". In the case of Corsica, the bad weather cost at least five lives.

Five per cent of France's land area and 10 per cent of the county's population are at risk from flooding. An emergency action plan has been adopted, which calls for work on, and easier access to, dykes, a close watch on the villages at risk and revision of land-use plans to prevent building in flood zones.

it is estimated that some US $450 million will have to be spent in the long term.

Italy

Floods

Human toll: 8 dead, 3 missing

Northern Italy was drenched in torrential rain for three whole days which left at least eight people dead and three missing. The regions affected were those bordering Switzerland and France (Liguria, Piedmont, the Aosta Valley and Lombardy). The damage was heaviest in the city of Genoa, some parts of which could only be reached by helicopter.

Kyrgyzstan

Floods

Human toll: 11 dead
Estimated damage: 275,000 hectares flooded, 1,000 homes destroyed or damaged

While Kyrgyzstan was still struggling to recover from several earthquakes which shook the country in 1992, very heavy snow fell during the winter of 1992/1993, with the result that the amount of water in the rivers doubled. The spring and summer of 1993 were particularly wet as torrential rain caused landslides. 209 families had to leave their homes for fear of landslides and 5,000 people had their dwellings destroyed or damaged. However, agriculture suffered worst of all: 929 head of cattle and over 64,000 sheep were killed and 272,633 hectares of farmland laid waste. The inhabitants of the towns of Sulyukta and Mayloo-Soo (more than 30,000) were forced to flee by the threat of landslides.

Tajikistan

Floods

Human toll:more than 50,000 homeless
Estimated damage: US $160 million, 10,000 homes destroyed, 100,000 hectares flooded

Torrential rain during the month of May 1993 inflicted a fresh natural disaster on the country. The River Varzob overflowed, destroying the pipeline and canal that supplied the capital, Dushanbe, with 75 per cent of its fresh water needs. A large part of Dushanbe was destroyed and at least 19 bridges were swept away.

A further flood caused by the River Vakhsh provoked the collapse of the Rogan Dam, which had been under construction for five years. A total of 30,000 hectares of cotton and wheat fields were flooded, together with a further 60,000 hectares in the vicinity of Shaar Tuz and Kambodian.

More rain and more landslides between 18 May and 4 June 1993 caused further damage: 183 houses were destroyed and 4,718 hectares of crops damaged.

The disaster took a terrible toll on the infrastructure of a country already suffering from civil war, especially in rural areas: 90 schools destroyed; 1,120 km of roads, 180 bridges and 250 km of river-bank reinforcement works swept away; and 15,000 head of livestock lost.

Tajikistan is in an extremely difficult economic and political situation because of the collapse of the centralized distribution system. The situation is complicated by the civil war which has been raging since May 1992.

Tajikistan needs long-term rehabilitation and development projects embracing programmes for appropriate construction in rural areas and for building of power stations, water-supply systems, roads and bridges. Such projects should not, however, be considered unless the water-management infrastructure is improved.

Kazakhstan

Floods

Human toll: 30,000 affected

In 1993, the spring melting of the snow in the Ural mountains, accompanied by heavy rainfall, caused serious flooding in the western part of Kazakhstan in late April. 30,000 people, including 18,000 children, were affected in the in the Caspian Sea area. The districts most severely affected were flooded by the overflowing of slow-moving rivers in an area of steppe. The rivers should be studied to determine whether it is necessary and practical to take preventive measures consisting in dredging the rivers at risk in order to clear their bed and limit the potential for future flooding.

Villages are sited on the banks of these rivers. The houses are often constructed of earth bricks, their exterior being rough rendered and treated with lime wash. The inhabitants reported that the water rose very rapidly, reaching flood level within an hour, and that the flooding lasted for eight to 10 days. This was sufficient time for the buildings simply to "melt". They added that the strong current carried away their personal effects and many head of cattle.

The sea is coming

Kazakhstan is confronted by a number of ecological problems, among which is the gradual rise of the Caspian Sea. By 2005, the Sea is likely to spread over a strip of land 10 to 40 km in width, which includes several towns. This is causing a forced displacement of people who either cannot return to their land or are threatened by the risk of rising water levels.

The Caspian Sea, which is rich in petroleum and contains large stocks of fish, is bordered by five countries (Kasakhstan, Azerbaijan, Iran, Russia and Turkmenistan. All these countries are affected by the rising water level. Preliminary discussions on the subject have begun, but the definition of frontiers has proved a stumbling block.

Other districts suffered from the gradual rise in the level of the Caspian Sea. After having initially withdrawn 30 years ago, the Sea is now gradually encroaching on the surrounding land. Since the terrain is completely flat, it requires only a prolonged period of high wind for the water to be temporarily "pushed" about a kilometre inland. The region is very verdant and the economy is at present based on the agricultural output of State farms.

OCEANIA

Australia

Floods

Damage: 4,000 homes partially destroyed

The worst flooding in 20 years damaged more than 4,000 homes and caused extensive damage to the farming community in many areas of the Australian state of Victoria at the beginning of October. Torrential rain brought record daily downfalls of between 135 and 157 millimetres to some towns.

Fiji

Cyclone Kina

Human toll: 20 dead, 10,000 homeless, 135,000 affected
Estimated damage: approximately US $100 million

The impact of Cyclone Kina was worse than originally expected after Suva, the capital of Fiji, and its surroundings were hit on Saturday night, 2 January by devastating gusts of 120 knots spanning an area 290 kilometres in radius. It affected virtually all areas of Fiji causing floods as bad as any in 100 years. The severe flooding of four major rivers (Ba, Rewa, Siatoka and Navua) on the main island of Viti Levu aggravated the situation. The producing zones which support over 60 per cent of the entire population will take a year or more to recover fully. With widespread destruction to main staples, export crops and livestock, adverse economic impact will be felt for some years. Lost income, decreased food production, and short-term food shortages were experienced by the Kina victims. The DHA was actively involved in disaster and relief management through its South Pacific Programme Office, and in consultation with the United Nations Resident Coordinator and the Government.

Papua New Guinea

Floods and Cyclone Adel

Human toll: 20 dead, 70,000 affected

The country was severely affected during the year even though widespread flooding is common during the wet season. In June, torrential rains affected 46,000 people in the southern part of Bougainville Island and killed 5 people.

Vanuatu

Tropical Cyclone Prema

Human toll: 1 dead and 10 injured, 7,000 homeless
Estimated damage: US $60 million

Tropical Cyclone Prema hit Vanuatu on 30 March 1993 with sustained winds up to 150 km/h causing massive destruction on Epi, Efate and Shepherd Islands, leaving 80 per cent of the population in need of relief assistance.

Are "floods of the century" becoming more frequent?

Many floods have been recorded which devastated the coastal belt along the North Sea during the last millennium. The number of "floods of the century" in any hundred year period has ranged from one to 13. Is this fluctuating number due to changes in the climate?

Rising temperatures seem to be leading to flood-producing rains and the release of energy-fuelling windstorms and hailstorms. A simplified example may serve to illustrate what a change in climate can mean. If the average rainfall in a given region was to increase from about 1,000 to 1,100 millimetres/annum and if this change was to correspond to about 90 per cent of one standard deviation, a flood catastrophe of a magnitude so far expected to occur once in a hundred years would become about 7.5 times more probable.

The likelihood of successive 20 year floods is about one in twenty times twenty, that is once every 400 years. If the mean rainfall were to change as mentioned above, two successive floods of this magnitude are likely to happen not once every 400 years, but once every 16 years.

Flood Protection barrier on river embankment

EARTH AND FIRE

Earthquakes, Volcanoes, Fires

Water and wind come down on us from above. When earth and fire strike, they come from below. The ground shakes and cracks, or spits fire into the sky. While we can hide from the wind, in a cave or building, earthquakes can destroy even the strongest structures and volcanoes, with their terrifying combination of earth and fire, cannot be fought by civil infrastructure. Even the best laid plans can only prepare for and reduce the destruction caused by the whims of our planet.

EARTHQUAKES

AFRICA:

SUDAN/EGYPT*	Aug. 1
Richter scale: Between 5.0 - 6.2	

THE AMERICAS and the CARIBBEAN:

ARGENTINA*	May 24
Richter scale: 6.6	
MEXICO	Sept.
Richter scale: 7.1	
USA, OREGON	Sept. 24
Richter scale: 5.7	
MEXICO, MEXICO CITY	Oct. 24
Richter scale: 6.5	
Aftershocks between 4.0 and 4.3	
CANADA, MONTREAL	Nov. 15
Richter scale: 4.1	
USA, ALASKA (ALEUTIAN ISLANDS)	Nov. 18
Three quakes 6.1, 5.2, 5.7	
NICARAGUA	Nov. 22
Richter scale: 5.5	

ASIA and the PACIFIC:

JAPAN, KUSHIRO	Jan. 15
INDONESIA, MOLUCCA SEA	Jan. 20
Richter scale: 5.7	
CHINA, YUNNAN PROVINCE	Jan. 28
Richter scale: 6.3	
Aftershocks to 5.2	
JAPAN, HOKKAIDO	Jan. 15
Richter scale: 7.5	
JAPAN, OKUSHIRI, (off the main	July 12
northern island of Hokkaido)	
Richter scale: 7.8	
CHINA, HIMALAYA REGION	March 21
Richter scale: 6.6	
NEPAL, KATHMANDU VALLEY	March 21
Richter scale: 5.2	
IRAN*	June 22
Richter scale: 5.6	
INDONESIA, FLORES ISLAND	Sept. 6
Richter scale: 6.0	
PAKISTAN, NORTH,	Sept. 18
Richter scale: 5.4	
INDIA, MAHARASTRATRA**	Sept. 30
Richter scale: 6.4	
CHINA, XINJIANG WEST	Oct. 2
Richter scale: 6.6 and 5.5.	

IRAN, NORTH Richter scale: 4.4	Oct. 2
IRAN, SOUTH Richter scale: 3.8	Oct. 3
JAPAN, TOKYO (under the Pacific Ocean)* Richter scale: 7.1	Oct. 12
CHINA, QINGHAI PROVINCE, WEST Richter scale: 6	Oct. 27
INDIA	Nov. 13
PAKISTAN, BALUCHISTAN Richter scale: 5.7	Nov. 16
JAPAN	Dec. 5

EUROPE:

ROMANIA Richter scale: 4.1	March 9
FRANCE, RENNES Richter scale: 4.5	March 13
GREECE Richter scale: 5.5	March 18
ROMANIA, SOUTHEAST Richter scale: 3.7	Sept. 18
ROMANIA, EAST OF BUCHAREST Richter scale: 3.5 & 3.4	Sept. 29
ROMANIA,VRANCEA REGION NORTH OF BUCHAREST Richter scale: 4.1	Nov. 4
RUSSIAN FEDERATION (NIS), KAMCHATKA, FAR EST Richter scale: 7.1	Nov. 13

OCEANIA:

NEW CALEDONIA Richter scale: 6.5	March 13
GUAM* Richter scale: 8.1	August 8
PAPUA NEW GUINEA Richter scale: 7.2	Oct. 13
PAPUA NEW GUINEA Richter scale: 6.5 Aftershocks	Oct. 16
PAPUA NEW GUINEA Richter scale: 7.0	Oct. 25

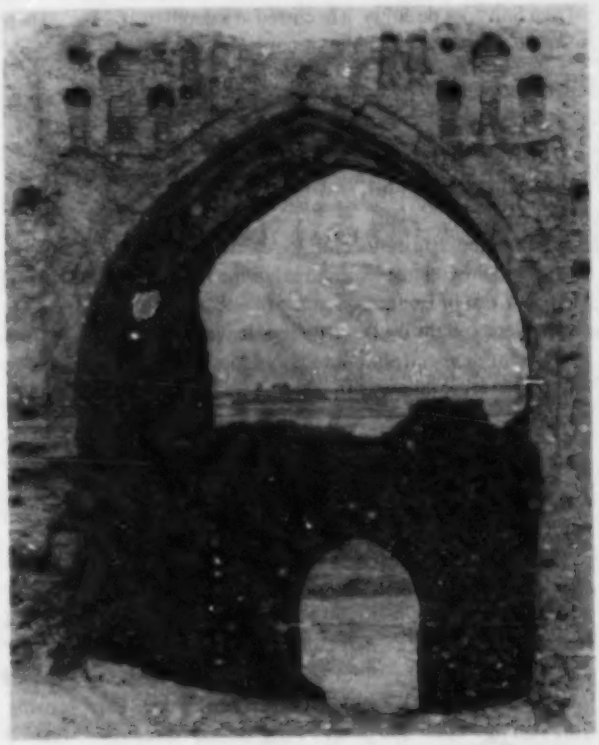
VOLCANOES

ASIA and the PACIFIC:

PHILIPPINES*,	Feb. 2
PHILIPPINES/MAYON VOLCANO,	March 24
PHILIPPINES/MT. PINATUBO, (Mudflows)	Nov.9

OCEANIA:

SIMBO ISLAND/ SOLOMAN ISLANDS	Feb. 13
PAPUA NEW GUINEA, MANAM VOLCANO	Oct. 6



AFRICA

Sudan/Egypt
Earthquake
Human toll: 3 dead, 10-20 injured

On August 1, Khartoum was struck by a quake measuring between 5 and 6.2 on the Richter scale. A few days before, some volcanic activity, possibly linked to tremors, was reported in Omdurman. The Geological Research Corporation recommended that citizens sleep outdoors.

THE AMERICAS AND THE CARIBBEAN

Argentina
Earthquake

On 24 May, a strong and deep earthquake measuring 6.6 on the Richter scale hit northwestern Argentina. Located 140 km northwest of San Salvador de Jujuy, it occurred at a depth of 162 km. There were no reports of casualties or damage.

Colombia
Volcanic Eruption
Human toll: 6 dead, 4 missing

On 14 January a minor eruption ejected ash, gases and glowing rocks from the Galeras Volcano in Narino Province more than 500 km southwest of Bogota. A group of vulcanologists studying the crater were caught by the eruption, leaving six dead, with four persons missing and six injured. No loss of life or injuries were reported to local inhabitants.

Mexico
Earthquakes

Three earthquakes, the most powerful measuring 7.1 on the Richter scale, struck Mexico's southern coast in September, unleashing tremors that could be felt in both the Mexican and Guatemalan capitals. No casualties were reported although there was panic in several towns. On October 24, a quake measuring 6.5 on the Richter scale rocked Mexico City, causing little damage but much panic as frightened residents awakened by the tremors rushed into the streets. The epicentre was 296 km southeast of Mexico City and 144 km east of Acapulco. The quake, which lasted a full two minutes, sowed panic in Mexico City where thousands were killed in a 1985 tremor measuring 8.1 on the Richter scale.

USA
Earthquakes

A state of emergency was declared in Klamath Falls in southern Oregon after a quake measuring 5.7 on the Richter scale shook the small farming town of 18,000 on 24 September. Not frequently affected by quakes, residents had reason for the fear they felt. Many preferred to sleep outside in tents rather than venture back into damaged buildings capable of collapsing during the following aftershocks. However, falling rocks proved more deadly as one of the many landslides crushed and killed a passing motorist. Although the quake was felt all the way down to northern California, relatively little damage was caused for its magnitude.

A moderate tremor in November shook the quake-prone state of California, striking close to Parkfield, which lies on the San Andreas fault. A major earthquake has been recorded there, on average, every 22 years since 1857. Residents call it "the earthquake capital of the world". It is the site of a major experimental effort to try and predict when big earthquakes will occur.

Fires
Human toll: 1 dead, 130 injured
Estimated damage: US$ 1 billion

A devastating firestorm swept relentlessly across southern California early October 26, cutting an ever-widening path of destruction that levelled hundreds of homes and forced 30,000 people to flee. Fed by searing desert winds, 15 major wildfires continued burning out of control on 30,000 hectares, stretching from the Mexican border to Ventura County north of Los Angeles, creating one of the region's worst maelstroms of the century. Hardest hit was the affluent suburb of Laguna Beach, where an 11 km wall of fire marched towards the sea, devouring more than 300 homes. The area, bordering on the Pacific Ocean 65 km southeast of Los Angeles, was engulfed in flames that raced down Emerald Canyon, fanned by the hot Santa Ana winds gusting to 65 km/h.

ASIA AND THE PACIFIC

China

Earthquakes

Human toll: 66 people injured

Estimated damage: 6,000 homes destroyed

In January a powerful earthquake measuring 6.3 on the Richer scale struck south China's Yunnan province. In March another quake measuring 6.6 hit China's sparsely populated Himalayan region of Tibet.

India

Earthquake

Human toll:7,611 dead, 15,566 injured, 170,000 affected

Estimated damage: US $7,916,700

Early in the morning of 30 September, an earthquake measuring 6.4 on the Richter scale and lasting 47 seconds wrecked havoc in the south-eastern area of the Maharashtra state of India, collapsing buildings and burying thousands of sleeping villagers. Most of them had just been celebrating "Ganesha", the Hindu god of Good Luck and New Beginnings. Fifty villages in an area of 70 square kilometres in the Latur and Osmanabad districts were severely damaged, with the villages of Killari and Sastoor bearing the brunt. The latter had experienced earthquakes in 1962, 1967, 1983 and 1984, together with 125 tremors between August and October 1992. Despite the occurrence of other important earthquakes in this region, the local authorities did not have enough background information to anticipate an earthquake of such a magnitude in the Latur region.

The most vulnerable zone in India has always been the belt bordering the Himalayan mountain range, which is associated with the collision of the Indian and Chinese crustal plates which began about 65 million years ago and is still continuing. The level of destruction was severe in the majority of cases, with the villages most affected sustaining up to 90 per cent collapse of all structures. It was the pucca houses, which belonged to the poor agricultural labourers, that suffered the most damage and caused the highest numbers of deaths. Pucca building are mostly a single storey, with granite stone walls bonded with mud and roofs constructed of heavy timber rafters over which smaller wood blocks and a layer of mud 60 centimetres thick is spread. The ruins of collapsed pucca houses resulted in large rubble piles and left little room for "survival space". Many survived because they were either tending cattle in the fields, operating agricultural pumpsets or sleeping in the open as is common during this time of the year.

Japan

Earthquakes

Human toll: 178 dead and 738 injured

Estimated damage: tens of millions of dollars

A powerful earthquake measuring 7.5 on the Richter scale rocked northern Japan mid January. The tremor, the strongest to hit Japan for almost 11 years, was felt across the country from the Pacific coast to the Sea of Japan. Most casualties occurred as people rushed to evacuate building by stairs. Richter magnitude 7.5 is theoretically strong enough to cause heavy damage to buildings, roads and other facilities in populated areas. This time the damage was limited because the focal point was deep in the earth's crust,

Japan: on the edge of trouble

Japan is located in the circum-Pacific seismic zone where the crustal movement is the most active, and earthquakes are therefore most rampant. While the Japan Archipelago and the surrounding continental shelves amount to only 0.1 percent of the total area of the world, the energy of the earthquakes emitted from there holds about as much as 10 percent of what the earth generates in total.

In Japan, a great earthquake of Richter magnitude 8 class recurs every ten years, and a large-scale earthquake of magnitude 7 class once a year. According to plate tectonics theory, in the vicinity of the Japan Archipelago the Pacific, the Philippine Sea, the Eurasian, and the North American Plates exist bordering each other.

The Pacific Plate and the Philippine Sea Plate slide by several centimetres every year and subduct themselves under the Japan Archipelago. This movement also pulls in the edge of the Eurasian Plate, and their strain energy accumulates gradually. When the strain reaches the extreme limit, the plates tend to revert to the original positions, and then both the fracture and the release of an enormous amount of energy take place simultaneously. (Information given by Mr. Ken Sudo, Expert for Earthquake Engineering, IDNDR)

In 1933, more than 3,000 people died when an earthquake on the Pacific coast measuring 8.1 hit Miyagi prefecture, northern Japan, causing huge post-seismic waves as high as 27 metres. In 1944, tidal waves and initial shock from an earthquake measuring 7.9 killed about 1,000 people on the Pacific coast of Wakayama Prefecture, central Japan. In the most recent quake followed by tidal waves in 1983, more than 100 people died and 163 were injured. The submarine quake in the Sea of Japan released tidal waves as high as 14 metres killing 104 people and injuring 163 others in Akita prefecture, northwestern Japan. *(Reuters)*

about 120 km beneath the Pacific Ocean just offshore from Kushiro. The quake was not followed by a tsunami, or post-seismic tidal wave, which could have caused several times the casualties and damage.

The area off the northern island of Hokkaido is a hotbed of seismic activity, and big shocks with accompanying tsunami in 1952 and 1968 killed 28 and 49 people respectively. In 1923 the Great Kanto Earthquake destroyed much of Tokyo and surrounding areas and killed more than 140,000 people, mostly in uncontrollable fires. Earth tremors are an almost daily occurrence in Japan, which sits at the meeting point of two tectonic plates.

Another earthquake measuring 7.8 on the Richter scale jolted wide areas of northern Japan on 12 July at 10 p.m local time. Its hypocenter was located 50 km deep below the sea surface southwest of Japan's main northern island of Hokkaido and big tsunami caused by earthquake claimed many human lives. The island of Okushiri which was near the epicentre was the hardest hit by the triple blow of tremors, tidal waves and fires. This tremor was the second serious quake of 1993 to hit Hokkaido, which is Japan's main farming island renowned for its unspoiled scenery. In terms of loss of life the earthquake was the worst since 1948 when a quake of magnitude 7.1 struck Fukui prefecture, western Japan, killed 3,769 people and destroyed more than 36,000 homes. The tsunami wave hit a post-war record height of 21 metres.

In October, a strong undersea earthquake measuring 7.1 on the Richter scale and centred far beneath the Pacific Ocean shook Tokyo early on 12 October. Fortunately, the epicentre was too far out in the Pacific to cause serious damage.

Philippines

Volcanic eruption

Human toll: 77 dead; 108,000 affected, 57,000 evacuated
Estimated damage: US $3,158,536

The Mayon volcano, located 330 km southeast of Manila in Albay province, erupted twice on 2 February. It blasted out clouds of hot ash that mixed with rain to form rivers of scorching mud. The Philippine Institute of Volcanology and Seismology (PHIVOLCS) indicated that one of these eruptions lasted 30 minutes. PHIVOLCS first set the danger zone at six kilometres from the foot of the volcano. Seventeen evacuation centres were set up to help evacuees in Legaspi city and in Albay province. Some of the victims, mostly farmers working on their ricefields, died of severe burns after being enveloped by clouds of superheated steam of 500 to 1,000 degrees Celsius, which mixed with ash and other debris.

The volcano continued its activity and pyroclastic flows (glowing avalanches) were observed on 5 and 6 February cascading down the southeastern side of the mountain and reaching an approximate distance of 5 km from the summit. PHIVOLCS advised that larger explosive eruptions may occur at short notice within the coming weeks and the high danger zone was increased to 10 km radius from the summit. Since 19 March, frequent eruptions occurred, with ash laden steam columns several kilometres high and vigorous lava fountains. Alert level 5, meaning hazardous explosive eruption in progress, was set up.

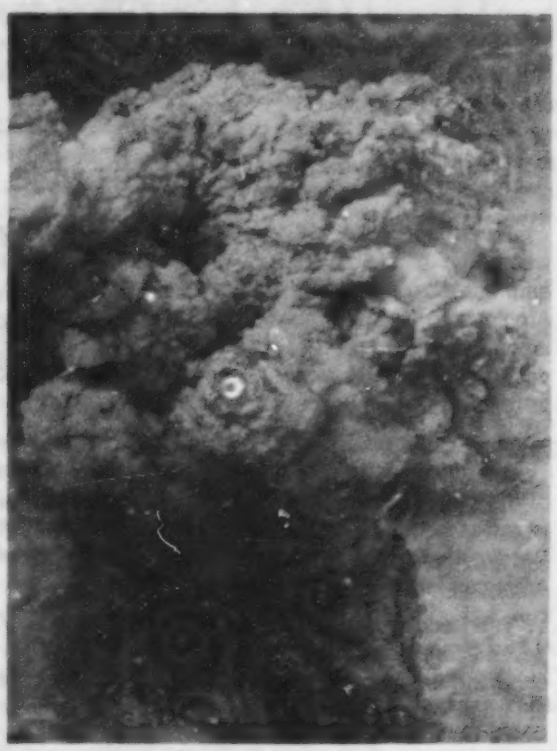
In early November, two years after the massive eruption of 1991, Pinatubo, the 1,780 metre volcano, erupted killing 11 villagers. In minutes, 90 per cent of the village of San Marceiino of 400 houses had disappeared. The eruption dumped billions of tonnes of rocks and ash on Pinatubo's slopes. When heavy rains come, they turn into raging rivers of mud that can obliterate everything in their path.

Volcanoes: A Fact of Life in the Phillipines

The Mayon volcano is one of the 21 most active volcanoes in the Phillipines and has a history of eruptions every 8-10 years. It last erupted in 1984, causing no casualties. It killed more that 1,200 people in an eruption in 1814 which buried a whole village under ash.

Mayon, famed as one of the most perfect volcanic cones in the world, is the second volcano in less than two years to wreack havoc on the Philippine countryside. More than 800 people died and a quarter of a million were made homeless when Mount Pinatubo north of Manila erupted in June 1991 in one of the century's biggest volcanic blasts.

The effects of the 1991 Pinatubo eruption continue to be felt today. The mud and ash spewed out on that occassion still causes havoc whenever there is a heavy downpour. The mud flows into villages, destroying houses and wiping out crops.



EUROPE

Earthquakes

March was a shaky month for Europe. Romania, France and Greece were rocked by earthquakes measuring respectively 4.1, 4.5 and 5.5 on the Richter scale. There were no reports of casualties or damage. In November, a strong earthquake struck the Russian far eastern peninsula of Kamchatka, shaking buildings and scaring residents but causing no major damage. Kamchatka, some 7,000 km east of Moscow, is one of the world's most active volcanic zones, with 29 active and more than 200 extinct volcanoes. Earth tremors are frequently felt on the sparsely-populated peninsula.

OCEANIA

French Pacific island of Futuna
Earthquake
Human toll: 3 dead, 10 injured

In March, an earthquake measuring 6.5 on the Richer scale hit the French Pacific island of Futuna. It was the most powerful of a series of 16 tremors to hit the island of about 3,000 inhabitants in three days. Its epicentre was about 100 km offshore. Futuna is about 500 km east of Fiji. The south Pacific is an area highly prone to earthquakes. A major tremor on Futuna in 1940 led to a devastating tidal wave, which was not a risk this time.

Guam
Earthquake
Human toll: 71 people hurt
Estimate damage: at least US $120 million (Reuters)

The world's strongest 60-second earthquake for four years struck the Pacific island of Guam on August 8, causing power outages, landslides and structural damage. With a magnitude of 8.1 on the Richter scale, it was classed as a "Great Earthquake". Several hotels on the island were severely damaged, with some of their floors collapsing, but there were no reports of deaths. It was the strongest earthquake in the world since an 8.2 quake near the McQuarie islands in the South Pacific in May, 1989. The notably low human toll was attributed to the fact that most buildings on typhoon-prone islands are constructed with reinforced concrete to withstand 320 km/h winds.

Papua New Guinea
Earthquake
Human toll:63 dead, 30 missing and 89,000 affected
Estimated damage: 1,122 houses destroyed, US $5 million

An earthquake measuring 7.2 on the Richter scale shook Papua New Guinea on 13 October, 40 km north-east of the town of Goroka, 440 km northwest of Port Moresby. It was followed by two severe aftershocks measuring 6.5 and 6.0. The Port Moresby geophysical observatory reported 10 earthquakes measuring more than 6.0 on the Richter scale had struck Papua New Guinea in 1993. The earthquakes triggered dozens of landslides in the Finisterre Ranges. According to geologists, this isolated mountainous area is geologically unstable and frequently affected by earthquakes. Papua New Guinea, on the Pacific's volcanic "Rim of Fire", is subject to frequent earth tremors. The nomadic existence of people living in the affected area made rescue work and a precise estimate of the population affected difficult. The impact of the disaster was aggravated as the same area has been severely hit by drought. Several minor earthquakes of 3 to 4 degrees on the Richter scale occurred following the major aftershock of October 16. More than six major earthquakes and 1,200 aftershocks were registered in two weeks.

Volcanic Eruption

Papua New Guinea prepared contingency plans to evacuate Manam Island off the country's north coast early October after a volcano erupted and lava threatened the island's 8,000 inhabitants. The Manam volcano erupted in 1992 and heavy lava flows destroyed crops.

Solomon Islands
VolcanicEruption

In February hundreds people were evacuated as a volcano erupted in the Solomon Islands. 300 villagers on Simbo Island were removed after the volcano began erupting.

REDUCING THE IMPACT OF NATURAL DISASTERS

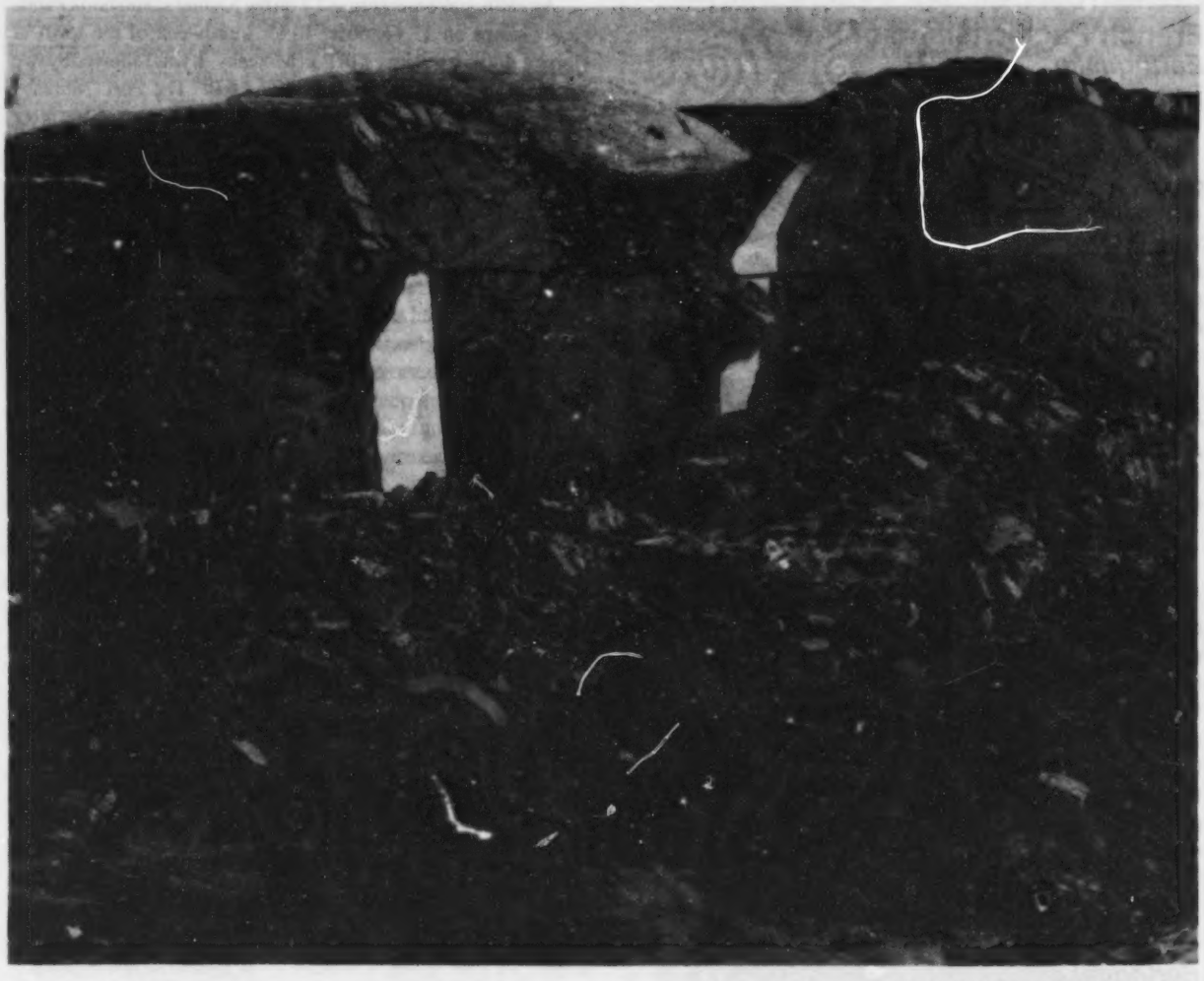


Photo UNCHS HABITAT/J. Leslie

Traditional homes built with earth were vulnerable to the flood waters.

Disasters continue to threaten life and property all over the world. More often than not, the most affected are those least able to withstand the physical, social and economic consequences. The recent earthquake in India serves as a cruel reminder of our vulnerability to such calamities. Over the past 30 years, the number of disasters has escalated. The related losses in terms of human lives and economic damage have also increased dramatically. Environmental degradation may further aggravate living conditions, exposing both the populations and their habitats to disaster. In many cases population pressures and poverty have led people to live in areas already exposed to natural and man-made hazards.

Some disasters may be prevented, and the adverse impact of others can be reduced. Disaster mitigation can be a very cost-effective approach. In order to minimise the consequences of future disasters most effectively, mitigation measures should be built into development programmes and be an integral part of the continuum from disaster relief to rehabilitation. Disaster-prone countries must at the same time be provided with the necessary resources to strengthen mitigation capacities.

During 1992 and 1993, the Department of Humanitarian Affairs provided assistance in formulating technical programmes and in channelling external assistance to meet the individual needs of 18 of the most disaster-prone countries. It furthermore helped to launch, in close collaboration with other international bodies and non-governmental organisations, collective programmes for groups of neighbouring countries with similar needs in Africa, the Andes, Asia, the circum-Mediterranean and the South Pacific. These programmes have encompassed more than 70 countries.

Report of the Secretary-General to the General Assembly
Strengthening of the coordination of humanitiarian emergency assistance of the UN
UN document A/48/536 (4 November 1993)

Mitigating Disasters: A Long-Term Commitment

At the second session of the Special High-Level Council on 25 January 1993, the Secretary General emphasised that we can do more in the field of natural disaster reduction. He said that there is no reason why we should wait passively for the next natural disaster to strike. We should mobilise scientific knowledge and technical know-how. We should give a positive response to the strong political interest and commitment of the international community.

There is no hard and fast division, in terms of their effects on civilian populations, between conflicts and wars, and natural disasters. Droughts, floods, earthquakes and cyclones are just as destructive for communities and settlements as wars and civil confrontation. Natural disasters add to the economic and social instability which now affects many countries.

Just as preventive diplomacy can foresee and prevent the outbreak of war, so the effects of natural disasters can be foreseen and contained. One of the Secretary General's first decisions on taking office was to redirect the Organisation's resources towards crisis and disaster management and the alleviation of the suffering of disaster victims. The General Assembly, in its Resolution 44/236, which defines policy for the Internatonal Decade for Natural Disaster Reduction (IDNDR), stressed the importance of preventive action before disaster strikes.

The underlying principle of the IDNDR is the premise that each country bears the primary responsibility for protecting its people, infrastructure and other national assets from the impact of natural disasters. Indeed, international financial and technical assistance can only provide limited help; the main actions to reduce vulnerability must be initiated and pursued at the country level.

Modern technology offers increasingly simple, reliable and low-cost methods for mitigating natural disasters. Yet paradoxically, the human and economic impact of such events continues to increase at an alarming rate in almost all countries.

When the Disaster Mitigation Branch (DMB) of UNDRO and the IDNDR Secretariat were incorporated into DHA in early 1992, it was logical to integrate their activities, with DMB as the operational promoter at the country level, in coordination with international agencies such as UNDP, UNESCO, WHO and WMO which have different sectoral responsibilities.

Disaster mitigation that works

The IDNDR has carried out numerous assessment and planning missions in disaster-prone countries. One of the most useful in 1993 was the landslide study in Ecuador. In March 1993, a massive landslide in a deep river valley near the city of Cuenca blocked a kilometre-long areas of the valley with an 80-metre high mass of boulders and earth, behind which river water of a depth of 65 metres accumulated within a month.

The DHA-supported project had already carried out landslide studies close to Quito, as well as river flood hazard mapping and emergency management in Cuenca, which meant that there were national officials ready to respond to the Cuenca emergency. Funding and experts were provided by Switzerland under a commitment to support IDNDR-sponsored activities in developing countries.

The safest and quickest way of cutting a channel through the upper part of this giant natural dam to trigger the controlled drainage of the new lake was identified, instead of the violent flood which might have otherwise swept downstream when the barrier was overtopped and rapidly eroded. These measures not only prevented the sudden release of the water but by also limited the extent of the flood caused by the dammed-up lake.

The case of Ecuador is an example of the way in which DHA's Disaster Mitigation Branch is spreading knowledge of appropriate technology and disaster management methods to numerous developing countries within the framework of the IDNDR. Work is continuing along similar lines with the national authorities of 14 more disaster-prone developing countries.

In addition, through regional networking and collaboration with other international agencies, DHA and the IDNDR are giving more modest attention to a further 35 countries. In all, national committees have

The aims of IDNDR

The essential functions of IDNDR are to:

1 **stimulate** understanding of potential hazards

2 **integrate** relevant national know-how into risk assessment and mitigation

3 **promote** appropriate scenario studies

4 **investigate** the disaster potential of all major new development projects, thus promoting disaster consciousness among development planners

5 **create** a permanent national institution responsible for initiating and supervising a continuously evolving programme of mitigation activities.

The IDNDR also aims to help integrate all relevant efforts into this programme, capitalise on each new disaster to initiate wider mitigation efforts in the light of lessons learned, and ensure that active exchange of experience and methodologies takes place between neighbouring countries with common problems and needs.

been created in 70 countries. This guidance with practical ways of dealing with the most probable and least well-rehearsed future disaster scenarios provides the necessary practical application as a counterpart to the promotional activities and strategy reviews carried out by the IDNDR Secretariat.

The IDNDR has led to wider recognition that many mitigation activities are both technically and financially within the reach of developing countries, and are the most cost-effective protection against the escalating human and economic impact of disasters. This achievement alone has made the exercise well worth while.

Disaster reduction is an open-ended task which no country, however advanced or committed to good mitigation, will ever achieve

This kind of practical assistance directly meets the first of the five main goals of the Decade, namely to improve the capacity of each country to mitigate the effects of natural disasters.

It also responds to the fourth and fifth goals, which are to promote programmes of information and technology transfer with emphasis on activities tailored to specific disasters and locations.

While international assistance is crucial in transferring technology and can provide a backup in times of crisis, disaster reduction is first and foremost a national responsibility which requires sustained and systematic attention. The practical application of mitigation measures needs to be carefully matched to conditions at each potential disaster site

Disaster reduction is an open-ended task which no country, however advanced or committed to good mitigation, will ever achieve. The list of possible disaster events extends to progressively lower-magnitude or less-probable scenarios, which nevertheless deserve attention as soon as higher priorities have been addressed.

There is also a need to regularly review and refine plans for mitigating and managing the more probable events and to verify that the highest possible standards are maintained in the design, siting and construction of new structures.

Given the very large scale and scope of this task, there is need for piratical action on a much broader scale than has yet been taken. ■

IDNDR World Conference for 1994

The major IDNDR event of 1994 will be the World Conference on Natural Disaster Reduction, to be held in Yokohama, Japan on 23-27 May. The Conference will review progress at national and regional levels, exchange information on programmes and policies, emphasise the need to integrate disaster reduction into development planning and chart future activities.

Another aim of the Conference is to convince policy-makers of the feasibility of disaster reduction. Particular efforts will therefore be made to address the doubts of politicians over the cost-effectiveness of mitigation programmes.

The Conference will include plenary sessions to provide an opportunity for statements from national delegations on their past activities, and on future priorities. National disaster authorities will be able to compare their experiences and mitigation methods.

Regional reports will also be presented. These will focus on problems and perspectives common to groups of countries. These reports will draw attention to shared vulnerability, identify opportunities for increased cooperation between neighbouring countries and highlight common needs arising from national progress reports.

Supporting IDNDR: the World Meteorological Organisation in 1993

During 1993, the World Meteorological Organisation (WMO) continued to support IDNDR through the special projects and its regular programmes. WMO is also taking part in the preparations for the World Conference.

The WMO/IDNDR demonstration project entitled "Tropical Cyclone Warning System for the South-West Indian Ocean" progressed in 1993 with the approval of funding from the European Development Fund (EDF) and the appointment of a project manager. The aim of this project is to enhance the meteorological observational and telecommunication networks, improve data handling and data processing, as well as the monitoring and forecasting of tropical cyclones. A detailed project review was made by the Tropical Cyclone Committee in Lilongwe, Malawi during its session from 28 September to 4 October.

Technology transfer is an issue that is close to the hearts of many advocates of support for developing countries. While there are many examples of informal technology transfer through WMO's different programmes, the system developed to transfer hydrological technology (HOMS) was established in 1981 to promote such exchanges. HOMS has been responsible for the transfer of nearly 3,000 components of hydrological technology.

Recognising that it would be of great value to institute a similar system to cover other areas of science concerned with disaster reduction, particularly meteorology, seismology and volcanology, WMO has launched the System for Technology Exchange for Natural Disasters (STEND). STEND extends the concept of HOMS to other parts of geophysics. To promote STEND, a meeting was held from 27 September to 1 October at the WMO Secretariat with representatives of the different scientific fields. It was then decided to start developing the system to allow components to be identified and transfers to proceed on a trial basis for areas such as seismology and volcanology. ■

Disaster Mitigation in Africa in 1993

Field missions were carried out to seven of the more disaster prone countries and a region-wide survey was conducted on the status of national disaster mitigation and future assistance needs. The results were presented at a conference jointly sponsored by the Organisation of the African Unity (OAU) and the Department of Humanitarian Affairs.

Construction of a new well. Existing wells need to be cleaned and repaired.

Photo UNHCR/L. Taylor

Throughout 1993, the major thrust of activity has been to increase the awareness of the continent's policy makers and planners about the beneficial links between disaster mitigation and socio-economic development. Concurrently, specific project activities continued in selected countries aimed at mitigating the effects of certain recurrent disaster phenomena. A third enterprise was financial resource mobilisation to respond to project proposals from several countries, in the spheres of comprehensive disaster preparedness planning, specialised training and the provision of appropriate equipment.

The close collaboration between the Pan-African Social Prospects Centre (CPPS) in Porto Novo, Benin and DHA permitted the latter to participate actively in the international Colloquium organised by the CPPS in Ouagadougou in March 1993, on the Need and Opportunity for an African Humanitarian Initiative.

The Department, as part of the Bureau designated by the Final Act of the Colloquium, prepared a document which was subsequently presented to the Summit of Heads of State and Governments of the Organisation of African Unity in June 1993. The final document duly emphasised the importance of mitigating natural disasters as well as of having a framework within which specific actions could be pursued by States, particularly at the community level.

In November 1993, a similar contribution was made by appropriate staff in the formulation of a draft African Common Position for the forthcoming World Conference on Natural Disaster Reduction in Yokohama.

Specific mitigation projects were continued in Egypt and Madagascar. Under the DHA fellowship programme, two experts from Algeria and the Republic of Guinea participated in a programme entitled Analysis and Management of Geological Risks organised by the Centre D'Etude des Risques Géologiques in Geneva in April and May.

Unfortunately, funding constraints prevented the accommodation of requests from several other African countries, for training schemes dedicated to various aspects of disaster management. In response to requests from Botswana and Burkina Faso, suitable candidates for consultancies aimed at strengthening aspects of their disaster management capacity were identified. Guinea, Lesotho, Malawi and Tanzania requested technical assistance to develop and strengthen their disaster preparedness capabilities but the responses to the Department's fund-raising initiatives were negative.

Participation of staff of the Mitigation Branch in DMTP Country Workshops, as trainers and facilitators offers a unique opportunity for their interaction with policy makers and planners and, thereby, promote or reinforce the integration of disaster mitigation into national development planning and implementation. The Ethiopia country workshop, held in December in Nazareth, offered an excellent opportunity for a critical examination of the country's latest documented strategy.

For Africa, the mid-term review of the IDNDR should afford an opportunity to revise assumptions and perceptions, redefine strategy, establish programme priorities, publicise the internal and external resource implications and mobilise them with assiduity and resolve. This is a cooperative endeavour to which the readers of DHA News can contribute. ■

DHA Disaster Mitigation Projects in Latin America

New country-specific programmes were launched for Peru in 1992 and Argentina in 1993, to complement similar activities in Colombia and Ecuador.

The vast majority of Latin American countries are frequently affected by different types of natural disasters like earthquakes, volcanic eruptions, tsunamis, floods, landslides, hurricanes and droughts. This is due to their tectonic situation, complicated topography, and meteorological and hydrological conditions.

This region has been characterized during the last decades by rapid industrialization and urbanization. These features have considerably increased the risk of technological and combined disasters in Latin America.

Subsequently, DHA has been receiving in recent years a considerable number of requests from national authorities responsible for emergency management, to formulate and implement a multihazard disaster mitigation project to enhance the national and local capacity to cope efficiently and in time with future hazardous events.

At present, DHA coordinates the multihazard and cross-sectoral disaster mitigation projects in Argentina (since 1993), Colombia (since 1988), Ecuador (since 1987) and Peru (since 1992). In addition, DHA mounted assistance in disaster mitigation project formulation and backstopping in Chile, Cuba, the Dominican Republic, Panama and Paraguay during the last five years.

Disaster mitigation programmes in Peru provide a good illustration of DHA's practical approach to disaster mitigation.

DHA Disaster Mitigation Project in Peru

The most serious natural phenomena causing severe damage and human suffering in Peru are earthquakes, volcanic eruptions, floods, mudflows and tsunamis. In addition, every year micro-disasters or accidents in the form of fires, explosions and dangerous substances leakages hit various industrial zones of the country.

The Government of Peru has recognized that its capacity to cope with disasters was hampered by many constraints, among which were insufficient human and material resources and a lack of knowledge in some of the required disaster analysis and management procedures.

An official request was therefore addressed to DHA to provide assistance in the formulation, fund-raising and implementation of a Disaster Mitigation Programme in order to strengthen the country's capability and to build up its self reliance in coping with natural and technological disasters.

The project which DHA has helped the national authorities to formulate and implement focuses on at least one local scenario for each of the major disaster types at a location of particularly high risk.

DHA has proposed the logical sequence of step-by-step procedures for dealing with each of these scenarios as follows:

1. **Hazard Assessment**
2. **Hazard Mapping**
3. **Monitoring and Alert System**
4. **Risk Evaluation**
5. **Prevention Measures**
6. **Preparedness Measures**
7. **Information and Training**

Through 1993, hazard assessment and mapping activities have been developed for the Misti volcano and for related floods and mudflows which could endanger the city of Arequipa. The Arequipa microzoning studies have been completed and delivered to the city's mayor and other key policy makers. The research results will find practical application as an integral part of the city's "Master Plan".

Tsunami and seismic risk studies have been completed for the southern provinces of Tacna and Moquequa, distinguished by their long seismic gap. The tsunami first wave arrival times have been defined for the coastal municipalities of Chala, Matarani, Mollendo, Mejía, Ilo and Boca del Rio. Based on these definitions, the local authorities improved their evacuation plans.

The creation of the national natural and technological disaster data bank has been initiated. DHA, in cooperation with UNEP, has prepared a curriculum for the "National Workshop on Industrial Disasters".

■

Focus on Dams: Hazardous Benefits

Dams provide society with essential benefits: water supply, flood control, recreation, electricity, irrigation. However, catastrophic flooding can occur when a dam fails and the impounded water escapes through the breach and into the downstream valley. Usually, the magnitude of the flow greatly exceeds that of other floods and the response time available for warnings is very short

Many countries in Latin America, Africa and Asia have large hydraulic plants. In case of failure, hundreds and even thousands of square kilometres can be severely damaged and even washed out by water waves of tremendous force.

There are two main types of dam: rigid dams and flexible dams, or dykes. Rigid dams include gravity dams and arch dams. Gravity dams are masonry dams. They have now virtually been abandoned because they are slow and expensive to build, and do not adjust well to slow settling or sudden shifting of the ground.

Arch dams comprise a rigid, but proportionally very thin concrete arch which, instead of resisting the pressure of the impounded water by its own weight, transmits that pressure into the valley sides. The higher the water pressure, the greater the stability of the dam.

In order to make use of the impounded water, dams incorporate numerous features that differ in nature according to the function the dam is intended to perform.

A dam may be built to provide an irrigation network, to supply a hydroelectric plant or to supply water for navigation locks. Spillway outlets ensure the safety of the dam should flood conditions occur. These outlets are situated as far as possible upstream of the dam structure, to avoid any vibration or erosion of the dam's bottom or bank support points.

Even a dam made of concrete lets some water through the structure. Any infiltration must be monitored, and the water collected and released downstream by means of drains, tunnels and wells. The dam itself and the rock forming the banks and the bottom of the dam must be monitored and drained, as must be the entire dam system, by means of an outlet system or tailrace tunnels.

Examples of dam/ dyke accidents

27 April 1895, Baas (France) - 300 deaths
31 May 1899, Pennsylvania (USA) - between 2,000 and 3,000 deaths)
9 January 1959, Vega de Tera (Spain) - 144 deaths
2 December 1959, Malpasset (France) - 421 deaths
13 March 1961, Kiev (Rep. of Ukraine) - 145 deaths
9 October 1963, Vaiont-Longarone (Italy) - 2118 deaths
23 October 1965, Torrejon el Rubio (Portugal) - 46 deaths
1 May 1966, Vratza (Bulgaria) - 96 deaths
11 August 1979, Morvi, (India) - between 5,000 and 25,000 deaths)
21 July 1985, Tesero (Italy) - 220 deaths

Source: Tribune de Genève, 20-21 July 1985.

Intensive monitoring

Dams require intensive monitoring: of rainfall and snowfall, of ice accumulation in the mountains and of alluvial deposits in the reservoir. The monitoring must also include measurement of deformation and of cracks. Warning sirens may then be installed to alert downstream inhabitants in the event of a disaster.

The ageing of dams also has to be taken into account. Dams are affected by cold when freezing water causes expansion. Infiltrating water can also produce dangerous effects when there is not sufficient drainage. Water can cause lime, in particular, to dissolve. The water at the bottom of a reservoir, which remains relatively still and is not rapidly replaced, may become loaded with sulphurated substances which can attack and weaken the dam.

Many dams are 30 or more years old, and they are a matter of concern. Hazard potential is increased by development, deterioration of materials or inadequate spillway capacity.

In the USA, the potential for catastrophic flooding due to a dam failure was brought to the nation's attention during the 1970s by several floods due to dam failures such as the Buffalo Creek coal-waste dam, the Teton Dam, the Toccoa Dam and the Laurel Run Dam.

The destruction caused by a dam bursting is due to two effects: the shockwave, a veritable tidal wave, of short duration, caused by the arrival of the frontal wave of the mass of water suddenly freed from the reservoir; and flooding caused by the spreading of the water formerly impounded above the dam.

About 38 per cent of all dam failures are caused by overtopping due to inadequate spillway capacity. About 33 per cent are caused by seepage through the dam or along internal conduits, while the remaining failures are due to foundation problems and other effects such as liquefaction of earthen dams as a result of earthquakes, and landslide-generated waves within the reservoir.

Any dam failure can cause loss of life, damage to property, and create ensuing hazards, as well as displacing people living in the inundation path. Electric generating can also be damaged and affect life support systems in communities outside the immediate hazard area. The failure of a large dam, depending on its size and the size of the downstream population, can overwhelm the response capability of local communities. ■

Focus on Dams: Hazards in a Few Countries

China

On 27 August 1993, a dam burst at Gouhou reservoir in Hainan Tibetan autonomous prefecture in the Qinghai province, wiping out several villages and killing 290 people. 2,800 people were severely affected and over 30,000 evacuated. Economic losses were estimated at US $27 million.

The dam sent cascades of water onto villages below. Hundreds of people were injured and many missing. The dam, 10 years old, is in one of China's remotest areas where a mixed population of Chinese and Tibetan struggle to coax a living from the arid plateau. The Gonghe area was hit by a destructive earthquake in 1990 and is believed to lie close to seismic fault lines.

France

The Vaucluse and Drôme regions were severely hit in September: 118 mm of the water fell on the Valréas region between 8 and 11 p.m. one night. The water rushed into houses, forcing the inhabitants to flee. The floods then spread to Bollène, which suffered the same fate. There was flooding in several communes in the Drôme. But questions have been asked. Do dams disturb the course of rivers? What dangers do they represent? In many cases, dykes were not kept under proper watch and breaches were inadequately plugged. Preventive action of this kind would unquestionably have spared the area irreparable damage.

The dyke alongside the Petit Rhône gave way on 10 October. The water rushed through like a raging sea: in all, 150 million cubic metres of water flooded the northern Camargue over an area of 12,000 hectares. This burst of ill humour on the part of the Rhône will cost the inhabitants of the Camargue dear and it will be many months before the meadows return to normal. Everything was swamped houses, furniture, canals and fodder.

USA

The powerfull floodwaters of the summer of 1993 provoked the failure of 39 levees among the 229 federally owned, inundating hundreds of square miles of cropland in eight states. About 800 privately constructed levees ruptured - many of them no more than earthen dams piled up by residents that were no match for the Great Flood of 1993.

Before Europeans and the great cities came to this continent, wetlands collected excess water in times of severe rains. But farmers and other people attracted by the river forced it artificially to confine its flow by building a complex and normally efficient flood control system with dikes and dams and levees. In 1993, the river rebelled and fought back, reclaiming its old places. It burried whole towns under more than 10 feet of water and destroyed nearly 70 per cent of a 9,500 km long levee system (three times larger than the Great Wall of China) and turned farmland, roads, cities and airports back into marshes.

Viet Nam

The major method of mitigating water disasters in Viet Nam has been to build river and sea dykes. Dykes have been built in Viet Nam for more than a thousand years to protect crops and other property against floods. Today there are approximately 5,000 km of river dykes and 3,000 km of sea and estuary dykes throughout Viet Nam. Rice agriculture would be impossible without the dykes.

In the Red River Delta in the north, people have built 3,000 km of river dykes and 1,500 km of sea and estuary dykes to protect against flooding. Many of these dykes are old and were built without adequate construction technology. The construction of dykes has gradually reduced overbank areas which used to be available for excess flood flows, with the result that river levels have become higher and higher. There are now many areas where the floodways are as much as five or six metres higher than the land protected by the dykes.

Along the coastal plains in the central part of Viet Nam, the people have built sea dykes to protect themselves against extreme events such as typhoons. When these dykes are breached, the fields are flooded by saltwater and rendered unproductive for years. If this happens frequently, there are not sufficient resources in the community to repair or upgrade the dykes, and people become impoverished and prone to malnutrition.

In some parts, the attacks on coastal lands by the sea have been aggravated by water-resource structures, particularly dams, that have interrupted the supply of sediment to the coast causing the coastline to recede by as much as one kilometre in 20 years.

Coastal flooding, coastal erosion and seawater intrusion are being worsened by human activities which are degrading the coastal ecosystems. Mangroves, as well as being valuable for high marine productivity, are important buffer zones against storm surges and typhoon damage, coastal erosion and seawater intrusion, and their care and promulgation should be promoted. Whereas natural mangrove forests used to be found along all the coast of Viet Nam 40 years ago, today they exist only in part of the Mekong Delta. Coral reefs often act as natural breakwaters which protect the coast, and their damage could lead to increased losses from storm surges and wind waves during the rainy season. ■

Sustainable Development

Putting the principle into practice in the Caribbean

"Sustainable development" has become a popular catch phrase in the 1990s. The term came into wide use after publication in 1988 of Our Common Future, the report of the World Commission on Environment and Development (often called the Brundtland Commission after the organizer, Gro Haelem Brundtland, the former prime minister of Norway).

Much evidence during the past decade has revealed that repeatedly, hard-won development has been set back years by natural hazards, which become tragic disasters because of inadequate planning. In many cases, countries experiencing rapid development have suddenly lost momentum when disasters struck. Limited resources for development initiatives often became even more scarce when they were siphoned off for recovery and reconstruction. Developing countries are thus in great need of sustainable development, development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

A study was conducted recently of the linkage between long-term disaster recovery and sustainable development in the Caribbean, focusing on the effects of several hurricanes since 1988. The studies were conducted by the Hazard Reduction & Recovery Center, and supported by the the former Office of the United Nations Disaster Relief Co-ordinator, the Pan Caribbean Disaster Preparedness and Prevention Project and the United States National Science Foundation.

Recognition of Ecological Limits

Recovering communities need to acknowledge the constraints to development posed by natural hazards. The hurricane disasters revealed that large numbers of people and properties were at high risk to hurricane forces. In many instances, housing had not failed because the materials were inadequate, but because they were improperly used. In other cases, population growth, increasing urbanization, shortages of low cost land, and impoverishment meant that people incurred severe losses because they were forced to live on marginal land, such as hazardous flood plains in Jamaica. Flooding in low-lying areas was also intensified because of poorly maintained storm drainage systems. Ecologically damaging development practices also compounded the risk, as in the case of deforestation in Antigua and Jamaica that induce watershed erosion and flooding.

Many communities seek to reduce vulnerability through improved building construction practices in the informal housing sector during the recovery. These activities typically involved some combination of training and demonstration projects, providing subsidized materials, and creating networks of local housing recovery task groups. These projects have proved particularly effective initiated through NGOs with well-established field networks and grassroots knowledge of local building customs.

Encouraging Sustainable Economic Development

Organizations involved with emergency response or recovery work view a disaster as providing an opportunity to promote economic development. In particular, collaboration between external donors and local organizations can lead to a strengthening of local organizational capacity to undertake development projects.

In St. Kitts, an external donor organization (Caribbean Conference of Churches) and a local NGO (St. Kitts Christian Council) initiated a collaborative project that linked recovery activities with long-range development work in the impoverished community of Saddlers Village. Development activities that evolved from recovery work involved installation of improved public water services and setting up a sugar cane production project.

Other cases involved agroforestry projects in Jamaica and St. Kitts that were initiated during the recovery period to repair severely damaged forest resources. These reforestation efforts address the long-term effects of environmental degradation and soil erosion. The projects demonstrated how energies can be devoted to meeting recovery needs and, at the same time, attack some of the essential long-term development problems that contribute to disasters.

Promoting a Socially Just Recovery

Disaster recovery experiences strongly suggest the need to follow a bottom-up capacity-building process that builds on first-hand knowledge of the people and their needs. Disaster-stricken people are not completely helpless and totally dependent on outside aid, but have substantial capacity for initiating their own modes of recovery and for learning and change. Viewed as participants rather than helpless victims, they are better able to exert control over outside recovery programmes and undertake self-initiated and directed development activities.

Socially just recovery efforts seek to shift development away from hazard-prone areas, especially so that the poor are not subject to extreme risks. They strive to reconstruct environments which provide all residents with safe and secure housing, and access to basic public facilities like health care, transportation and meaningful opportunities to generate income.

Sustainable recovery efforts provide opportunities for all residents through a variety of approaches. In Streatham Village of Montserrat, for example, a Canadian donor organization empowered a long-established local NGO with building materials, financial assistance, training and logistical support to undertake recovery work, rather than do the work itself. The NGO's network of local participants expanded considerably as a result of the outside aid. This increased capacity permitted the NGO to extend its work from repair and reconstruction to long-range housing improvement projects

Putting It All Together

While issues associated with alleviation of poverty, underdevelopment, and the devastating effects of hazards are not new or unique to the disaster field, the vision of sustainable development can integrate them in compelling ways. Sustainable development offers a central organizing principle for mobilizing people and societies to cope with disasters, to recover, and to develop their capacities to create places of enduring value.

Sustainability criteria need to be created and used to evaluate all proposed disaster reduction and recovery actions. This implies a search for creative ways of accomplishing change. Disaster related initiatives can no longer treat natural hazards, economic development and social equity as isolated issues. Rather the issues should be viewed as overlapping and requiring integrated strategies.

by Philip R. Berke
Hazard Reduction & Recovery Center
Texas A&M University, USA

The 1993 Sasakawa Disaster Prevention Award: A Tribute to Vit Karnik

In July 1993, Dr. Vit Karnik was made the 1993 laureate for the Sasakawa-DHA Disaster Prevention Award for his long record of achievement in prevention of and preparedness for disasters, especially earthquakes.

The purpose of the annual Award, created in 1986 by Mr. Ryiochi Sasakawa, is to promote humanitarian efforts to assist those affected by natural disasters and to protect those living in high-risk zones and struggling for survival against natural adversities.

Dr. Karnik was Chief of the Disaster Mitigation Branch at the former UNDRO in 1981-84 and Chairman of the Editorial Board of UNDRO News (this publication's forerunner) in 1982-88, before moving on to the Geophysical Research Institute in Prague.

In explaining their selection, the jury emphasised the fact that Dr. Karnik had been an important innovator his forty years in disaster mitigation and had been deeply involved in some of the United Nations' pioneering activities in disaster reduction.

Dr. Karnik was one of the authors of the MSK Earthquake Intensity Scale, one of the most effective earthquake risk management tools today, and spent many years directing and supervising risk assessment and mitigation projects in the Balkan and Mediterranean regions.

His hundreds of publications include two volumes of "Seismicity of the European Area", and he intended to use the prize money from the Sasakawa Award to overcome problems in preparing the third volume.

Dr. Karnik died in January 1994. This remarkable man was a diplomatic leader and an innovative scientist who sought to apply his work to the practical problems faced by people living in earthquake zones. The world is poorer since his death.

What follows is an edited version of Dr. Karnik's acceptance speech on 23 July at the Palais des Nations in Geneva.

Mr. Deputy Secretary-General, ladies and gentlemen,

First of all, I wish to say that I feel much honoured by having been selected as a laureate of the Sasakawa Award. I greatly appreciate the decision of the Jury to acknowledge my past and present work with such a prestigious prize.

Photo DHA

Mr. J. Eliasson handing over the Award Certificate to Vit Karnik.

The present trends in seismological research stem from the premise that seismologists have to provide basic inputs to guarantee an effective system of earthquake mitigation. In practice, these measures mean building safe structures resistant to the shaking expected at a particular site, introducing and enforcing legislative measures regulating land use, construction technologies, public information and emergency planning.

That a natural disaster can throw national economies back by years and that prevention is less costly than rehabilitation are now generally recognised. In the European-Mediterranean area it was the destructive Skopje earthquake in 1963 which gave rise to a series of UN-sponsored projects aimed at practical loss reduction measures. However, Governments face immediate problems that overshadow the threats posed by natural disasters. Earthquake disasters recur after several decades and the awareness of an acute threat usually outlives the disaster by only weeks or months. Some developing countries cannot afford or guarantee long-term investments in prevention.

It is imperative that disaster mitigation measures become an obligatory part of development projects. Alarming human losses during recent catastrophic earthquakes were evidently due to the absence of a rigid and systematic control of the quality of buildings. Codes and regulations based on research may be technically perfect, however, they are completely useless when their implementation is not severely supervised.

Ladies and gentlemen, I realize that I was unable to please you with announcements of some brilliant and spectacular achievements of seismological research. It is true that I was mostly repeating notorious conclusions on critical subjects of earthquake disaster mitigation, but I believe, that they must be repeated to see them materialise as soon as possible. ■

STRENGTHENING THE DISASTER INFORMATION CAPACITY

If a tree falls in a forest but no-one is there to hear, does it make a sound? By the same token, if a humanitarian catastrophe occurs but is not noticed, what has really happened? For the people left dead and the land destroyed, the impact is just as real, but for the outside world, oblivious to the disaster, nothing has happened.

Timely, accurate information can not only alert the international community, it can mobilise and direct resources where they are needed most.

In the field, modern communications technology saves time, lives and money. In the Headquarters of concerned organisations around the world, solid, concise and complete information allows decision-makers to take those decisions with full knowledge of the situation they are trying to improve. In this area, the Department of Humanitarian Affairs is working towards full transparency of information between agencies and governments.

Information can be the torch which lights the way for donors and aid providers. Without this tool, we would be working in the dark.

Emergency Telecommunications with and in the Field

Telecommunications with and within countries which require international assistance are often insufficient even in normal times. At the time of an emergency they are overloaded at best, and in many cases they are completely disrupted.

Reliable telecommunications links with the site of a disaster are, however, an indispensable tool for DHA in the fulfilment of its mandates of co-ordination and information collection and sharing. Consequently, the capability of DHA to ensure independent, reliable links on shortest notice has been strengthened considerably in 1993. This effort proved invaluable during the relief operation in Georgia in October 1993, just after the first full-scale test during "Exercise 93" in Vienna in September.

In both cases in 1993, and corresponding to the three levels of relief co-ordination, three types of telecommunications links were provided by DHA:

- **At the actual disaster site,** international rescue teams, local authorities, civil defense and other relief units need communication with each other and with the On Site Operational Co-ordination Centre (OSOCC). DHA provides complete sets of VHF "walky-talkies", base and mobile stations as well as an automatic repeater station to increase the range of the network to typically 10 to 30 kilometres.

- **Between the disaster site and the capital of the affected country,** typically between the OSOCC and the Disaster Management Team (DMT), national authorities and offices of UN and other agencies. DHA provides portable HF (shortwave) radios for independent communications, compatible with similar equipment which often already exists in the country, as well as satellite links (telex, telephone, telefax and data) to communicate via the public telephone network in the capital.

- **Between the affected country or region and the "outside world",** typically with DHA and UN agencies' headquarters. For these links, DHA provides satellite terminals, and, to reduce telecommunications costs, shortwave equipment is being evaluated.

At DHA Geneva, the emergency telecommunications links interface with the existing information systems. Through this systems situation and information reports are distributed to the international donor community. An important step towards even better and faster processing of information was undertaken in 1993. By the end of the year, the new DHA telecommunications and operations rooms were under construction, and will become operational in the first months of 1994. In June 1993, training of DHA staff and UNDAC team members in the use of new equipment took place. Furthermore, the UNDAC team to Vienna as well as to Georgia included a telecommunication officer from UNOG. ■

UNIENET: The United Nations International Emergency Network

UNIENET is an electronic network established by DHA (formerly UNDRO) in late 1987. At present, it links 200 users in 51 countries worldwide covering United Nations organizations, non-governmental and governmental organizations, universities, libraries and individuals acting in disaster management.

New facilities on ***UNIENET*** during 1993: can be reviewed under 3 headings.

New bulletins: The World Conference on Natural Disaster Reduction, an IDNDR bulletin is newly on-line on ***UNIENET***. It contains the conference programme, subscription forms, request for papers, etc.

DHA Information Reports and Consolidated Appeals are also available in addition for on-line consultation.

New databases: The Directory of International Search and Rescue Teams (SAR), is new also new available on-line.

Listserv facilities: ***UNIENET*** extended its services providing an automated distribution of the DHA-Sitreps to specific mailing lists. Subscriptions and cancellations are handled directly by sending specific commands.

Binary information exchange: By means of WordPerfect, Lotus and Excel files, the communication between Geneva and New York was extended to a binary exchange of information. The two offices now have access to original documents eliminating certain re-typing efforts when receiving a document by fax, telex, etc.

Plans are in place for ***UNIENET*** to be a full participant in the ***Internet*** in 1994: Joining Internet means joining today's web of computer networks. Internet offers opportunities of providing major benefits in fast response, efficiency and economy for coordination of operations. Internet also furnishes the ability to integrate collaborative organizations connected to the Internet and provide them with tools for exchanging information between remotely located partners.

A survey conducted in July 1992, showed that, the Internet connectivity was *essential* for a large majority of ***UNIENET*** users. Internet represents the world's best example of distributed networking, the trend of modern global computer networking. Consequently, in the course of this year, ***UNIENET*** will be offering on-line disaster related information to Internet members through interlinked distributed services. ■

Information: A never-ending task

How to provide information which meets the specific needs of actors involved when a disaster strikes? This is certainly the main consideration shaping the activities of the Information Management Branch of the Department of Humanitarian Affairs (DHA). While technological progress may go some way towards providing an answer, the main difficulty lies in selecting the relevant information, processing it to meet all emergency needs and disseminating it effectively to the various parties concerned.

There is no shortage of information, as the statistics for the year clearly show. Our Central Registration Service in Geneva monitors 9,000 active files and opened 815 new emergency files in 1993, compared with 600 in 1992. It estimates the number of documents received in 1993 at 45,000, an average of 180 messages a day, including letters, faxes and telexes. The volume of messages received in our New York office is just as great.

Our Documentation Centre, which specializes in emergencies and already has 3,800 documents on file, added 330 more in 1993, including 40 books and monographs, 130 reports and studies, 95 dossiers and articles and 65 miscellaneous documents of special relevance to work dealing with humanitarian issues such as the provision of emergency relief in situations of conflict, the role of the army and the presence of United Nations peace-keeping forces. The comprehensive update of the Centre's inventory of some 300 periodicals received each year from all continents will be completed in 1994. During the past year, some 100 research workers, consultants and other visitors have come to consult specialized documents on a wide range of subjects.

The activities of our Publications Unit have also expanded. The number of current publications increased from 36 in 1992 to 100 in 1993. More than 3 million pages were published during the year. Each month, an average of two press releases and eight publications were issued. The six editions of DHA-News in 1993 provided information on the Department's activities. The special edition of DHA-News is distributed to about 33,000 subscribers.

In Geneva, DHA's local area network (LAN) carries information needed by emergency managers. In 1992, it consisted of only one server, 54 work stations and about 10 printers in our offices in the Palais. Now, it has been extended to the Petit Saconnex premises, about 2 km away, with the installation of a second server, another 40 PCs and 2 printers. Sixty-five staff members, about half the DHA staff in Geneva, have taken computer courses as part of the in-house training programme and can thus make use of the skills acquired.

Information is distributed to the outside world in a number of ways:

UNIENET, the international electronic emergency data network established by DHA provides some 200 emergency specialists in 51 countries with information on emergencies in 30 bulletins produced as a result of cooperation between DHA, UNHCR, FAO (GIEWS), PAHO, ICVA and the University of Colorado, as well as its affiliated centre in Asia (AIT-ADPC).

The 225 emergency situation reports prepared by the Relief Coordination Branch in 1993 were sent by fax, telex and electronic mail using a computerized system which automatically and very rapidly sends out all messages to the 2,000 individuals and agencies working in the emergency field listed in our database.

IERRIS: a management standard for the future

The purpose of the International Emergency Readiness and Response Information System (IERRIS) is to bring together on a formal basis a steadily growing number of international actors who agree:

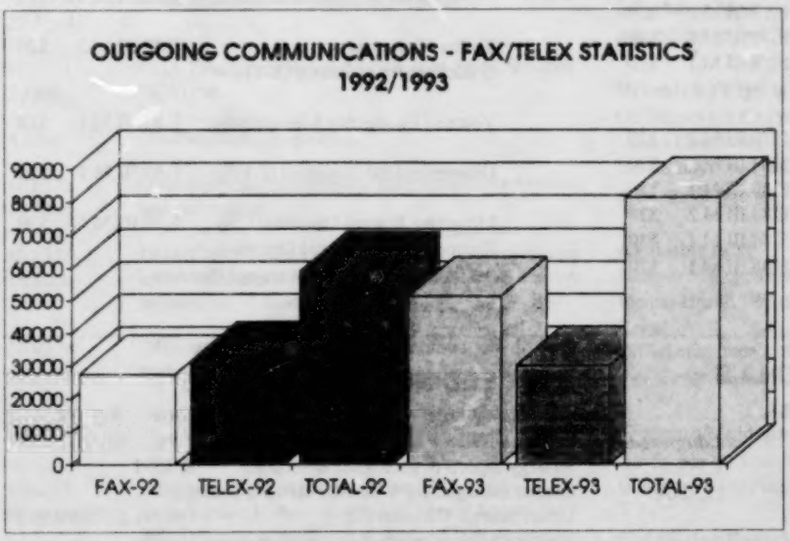
- to follow common Standard Operating Procedures (SOP) in information management for international readiness and response to disasters/emergencies,
- to work with common and/or compatible information management standards and technologies,
- to collaborate in the development of new information systems to cover needs which are not met by existing systems,
- to share and exchange with other participants emergency/disaster data collected for respective institutional needs,

so that the information of the quality and quantity need for international emergency readiness and response is available worldwide in "real" or "near real" time at multiple decision-making points worldwide

In September 1993, we began the electronic distribution of consolidated inter-agency situation reports on complex emergencies such as those in Angola, Azerbaijan, Burundi, Ethiopia, Kenya, Liberia, Rwanda, Yugoslavia, Somalia, Sudan and Tajikistan. These reports were also distributed via UNIENET. During the year, DHA expanded its communications possibilities by setting up two mailboxes on the INTERNET.

The overhaul of our telecommunications and information-management systems has continued this year, so as to take advantage of new technologies and improve reliability and efficiency.

A new document-management system is currently being studied. The Registry Unit will be equipped with a scanner to improve in-house distribution of the documents received by conventional mail. The inauguration of a local network in New York linked with the Geneva network will facilitate the exchange of information within the Department. In 1993, with donations from the Governments of Japan and the United Kingdom, our **Emergency Operations Centre** advanced from the planning to the implementation phase.



Three rooms, covering an area of 70 square metres, have been equipped to handle, respectively, operations, communications and preparation for field missions.

Operations staff will have state-of-the-art equipment and will use personal computers to access databases containing emergency management data. Multiple telephone lines will improve the handling of emergency telecommunications. Access to the media will be via television monitors and news services linked directly to the computer network.

The mission preparation room will be stocked with clothing and emergency survival kits for mission staff, as well as with Inmarsat Standard C or M communications equipment for use in the field. The Centre will be operational by April 1994.

The smooth coordination of all these activities and, in particular, the efficient exchange of information with the outside world, calls for a master plan, a degree of vision and a willingness to cooperate. It was precisely for these reasons that DHA launched the IERRIS project in 1993.

IERRIS will be the driving force for developments in disaster information management, not only for DHA, but for all those involved in this field throughout the world. ■

Information: an upcoming focus for *DHA News*

There are other aspects of communications and information which must also be taken into consideration when a humanitarian emergency, whether caused by a sudden disaster or by the combined long-term effects of a number of factors, not only renders the life of a whole region of the world impossible but places its very survival in doubt.

There are tragedies which are forgotten because those transmitting the information, mainly in the world of the media, all focus on the same question at the same time. A camera can only capture one image at a time, and while it focuses on one tragedy, others, while they are every bit as grave, are ignored because they are less newsworthy.

We know that this question is too long to go into in this last part of our publication. We will be making *forgotten tragedies, forgotten countries, the media and disasters* the theme of one of our future issues. We just wished to draw attention to it here.

DHA in print

LIST OF PUBLICATIONS, TECHNICAL REPORTS, APPEALS FOR COMPLEX EMERGENCY SITUATIONS AND GENERAL INFORMATION DOCUMENTATION

Publications for sale

DISASTER PREVENTION AND MITIGATION
Former-UNDRO/UNEP
Compendium of Current Knowledge

Volume	*Titles (Language)*	*Sales No.*	*Price (US$)*
Vol. 1	Volcanological Aspects (F/S)	E.76.III.M.1	$20
Vol. 2	Hydrological Aspects (E/F/S)	E.76.III.M.2	$20
Vol. 3	Seismological Aspects (E/F/S)	E.77.III.M.3	$20
Vol. 4	Meteorological Aspects (E/F/S)	E.79.III.M.1	$20
Vol. 5	Land Use Aspects (F/S)	E.78.III.M.1	$20
Vol. 6	Construction & Civil Engineering Aspects (to be published shortly)		
Vol. 7	Economic Aspects (E/F/S)	E.79.III.M.2	$20
Vol. 8	Sanitation Aspects (E/F/S)	E.83.III.M.1	$20
Vol. 9	Legal Aspects (E/F/S)	E.80.III.M.1	$20
Vol. 10	Public Information Aspects(E/F/S)	E.80.III.M.2	$20
Vol. 11	Preparedness Aspects (E/F/S)	E.84.III.M.1	$40
Vol. 12	Social & Sociological (E/F/S)	E.86.III.M.1	$20

GUIDELINES FOR DISASTER PREVENTION

Volume	*Title (Language)*	*Sales No.*	*Price (US$)*
Vol. 1	Pre-Disaster Physical Planning of Human Settlements (F/S)	E.76.III.M.3	$10
Vol. 2	Building Measures for Minimising the Impact of Disaster (E/F/S)	E.76.III.M.4	$10
Vol. 3	Management of Settlements (E/F/S)	E.76.III.M.5	$10
	Shelter after disaster Guidelines for assistance (E/S)	E.82.III.M.2	$20
	Volcanic Emergency Management	E.85.III.M.1	$18
	Disaster and the Disasbled (E/F/S)	E.82.III.M.1	$10
	Mitigating Natural Disasters (E/S) Phenomena, Effects and Options A Manual for Policy Makers and Planners	E.90.III.M.1	$30

GENERAL INFORMATION ON DHA'S ACTIVITIES (leaflets, brochures)

Title	*Languages*
Natural Disasters - Student Leaflet	E/F/S
DHA Warehouse in Pisa (revised version will be issued soon)	E/F/S/A
UNIENET - United Nations International Emergency Network	E
Disaster Management Training Programme (DMTP)	E
DMTP at a Glance	E
Resolutions on DHA's mandate	**E/F/S**
Internationally agreed glossary of basic terms related to Disaster Management	E/F/S

WORKSHOPS

Title (Language)	*Date*	*Ref. No.*
Guidelines on the use of military and civil defence assests in disaster relief (E/F/S/R)	1993/ 1994	DHA/93/151
Proposed design for an IERRIS (E) disaster information systems network	Dec.92	DHA/93/02

SEARCH AND RESCUE

Title (Language)	*Date*
United Nations Disaster Assessment & Coordination (UNDAC) Stand-by Team Field Handbook	will be issued soon
UNDAC Report (E/F/S)	

PROCEEDINGS OF SEMINARS

Title (Language)	*Date*	*Ref.No.*
Former-UNDRO/USSR Training Seminars	1990 & 1991	GE.93-01699
Strategy aspects of geological & seismic disaster management & disaster scenario planning		
Urban Seismic Disasters (E)	Oct /91	UNDRO/92/08
Santiago Seismic resistant construction code and insurance		

REPORTS ON DISASTER PREVENTION AND MITIGATION DISASTER RELIEF COORDINATION

Title (Language)	*Date*	*Ref. No.*
Georgia - DHA activities in 1993 (E)	March 1994	
Floods in the Islamic Republic	Feb/March/ April 1993	DHA/93/132
Landslide La Josefina on the Paute River, Cuenca, Ecuador (E)	1993	DHA/93/135
Exercise '93 (E)	1993	
Strategy & Action Plan for mitigating water disasters in Vietnam (E)	1993	DHA/94/1
India - Earthquake 29 Sept.1993 (E)	1993	GE.93-03165
Egypt, Earthquake of 12 Oct.92	1993	
Joint mission for the assessment of structural damage: Construction & Recommendations (E)		

DHA PRESS RELEASES ISSUED IN 1993

ND/360 11 January	DHA issues urgent preliminary appeal for emergency humanitarian assistance to Tajikistan
ND/362 1 February	Inter-Agency Humanitarian needs assessment mission to Georgia
ND/365 5 March	First DHA co-ordinating meeting on emergency stockpiles
ND/366 25 March	DHA airlifts relief supplies to Georgia
ND/367 2 April	DHA airlift of relief supplies from Pisa to Mogadiscio in cooperation with the U.K. Government
ND/368 15 April	Appel interorganisations en faveur de la population déplacées au Rwanda
ND/369 27 April	DHA airlifts relief supplies to Eritrea
ND/371 2 June	DHA Emergency Relief Assistance to Flood Stricken Tajikistan
3 June	UNAVEM II - Angola
ND/372 10 June	Donors meeting on humanitarian assistance for Armenia and Azerbaijan
ND/373 16 June	DHA/UNDP disaster management training programme: achievements and prospects to be discussed at Geneva meeting on 17 June
ND/374 29 June	DHA stand-by team for rapid response when disaster strikes
ND/375 2 July	Pledging Conference for Eritrea
IHA/87 10 August	UN Department of Humanitarian Affairs and Organization of American States Renew Appeal for $62.7 million ot meet urgent needs of Haitian people
ND/377 30 August	Austria hosts DHA-sponsored international earthquake exercise to improve response to sudden onset disasters
ND/378 8 September	First deployment of DHA-developed UNDAC stand-by team to coordinate international relief teams at simulated earthquake in Austria
ND/379 4 October	DHA stand-by team assists victims of earthquake in India
ND/380 13 October	Vols d'urgence du Département des Affaires Humanitaires à destination de la Géorgie
ND/381 13 October	DHA information meeting on Maharashta earthquake, India
ND/382 25 November	IDNDR meeting reviews past year's activities and discusses Yokohama World Conference on Natural Disaster Reduction
ND/383 3 December	Georgia: new requirements for humanitarian assistance arise as winter and new wave of displaced arrive
ND/384 13 December	Géorgie: Pont aérien Pise - Tbilisi

DISASTER MANAGEMENT TRAINING PROGRAMME (DMTP)

Training Modules and Trainers's Guides Currently Available
Overview of Disaster Management (E/F/S)
Disaster Preparedness (E/F/S)
Disasters and Development (E/F/S)
Disaster Assessment (E/F/S)
Disaster Mitigation (E/F/S)
Displaced Persons in Civil Conflict (E/F/S)
Drought and Famine (E/F/S)
Introduction to Hazards (E/F/S)
Vulnerability and Risk Assessment (E/F/S)
Disasters and the Environment (E/F/S)

Training Modules and Trainers's Guides Available Later
Disaster Economics
International Law in Emergencies
Information Management & Communications
Rehabilitation and Reconstruction

Research Projects
Guidelines for the Preparation of Case Studies
Model Case Study: Severe Tropical Storms
Desk Study: The Needs of Women and Children in Emergency Situations
A Research Agenda for Disaster and Emergency Management

Avalaible later
Disaster Management country models (4)
Mental Health - Post-Traumatic Stress Disorders as a result of war in Beirut
Differential impact of natural disasters on women in rural Bangladesh
Ten country case study - disaster management models

Training Guidelines
Guidelines for Training in Disaster Management
Guide to Developing Training Strategies and Programmes

Simulation Exercises
Disaster response
Mitigating planning
Complex emergencies

SITUATION REPORTS ON COMPLEX EMERGENCIES

A series of United Nations Consolidated Inter-Agency Appeals was issued in 1993 for the following countries: Afghanistan, Angola, Arménia, Azerbaijan, Burundi, Eritrea, Ethiopia, Georgia, Iraq, Kenya, Mozambique, Rwanda, Somalia, Sudan, Tajikistan, Former Yugoslavia, Zaire.

Documents and Technicals Reports are printed in limited numbers and will be provided on request subject to their availability by
DHA Geneva, Information and Publications Unit,
Room 300-8, Palais des Nations,
1211 Geneva 10, Switzerland
(Direct line: 9173178).

WORLD FOOD PROGRAMME (WFP). REGIONAL BREAKDOWN OF NUMBER OF BENEFICIARIES, VOLUME OF FOOD COMMITTED AND VALUE OF PROJECTS
(Protracted Refugee and Displaced Person Projects)

Approved from 01.01.93 to 31.12.93	Total	Sub-Saharan Africa (1)	Asia and the Pacific (2)	Latin America and the Caribbean (3)	East Europe, NIS Mediterranean and Middle East (4)	Percentages (1) (2) (3) (4)
No. of Operations	19	11	4	-	4	
No. of Countries	20	13	4	-	3	
No. of Beneficiaries (million)						
Refugees/ Displaced persons	9.4	6.1	1.5	-	1.8	67 15 - 18
Total volume of food (tons)						
Refugees/ Displaced persons	1 137 508	667 349	229 900	-	240 259	59 20 - 21
Total cost ($ million)						
Refugees/ Displaced persons	445.3	294.1	69.3	-	61.9	66 16 - 18
Budget revision (CFA 35th approval)						
No. of Beneficiaries (million)	0.3	0.3	-	-	-	100 - - -
Total volume of food (MT)	37 162	37 162	-	-	-	100 - - -
Total cost (US$ million)	17.9	17.9	-	-	-	100 - - -
Budget revisions for projects approved prior to the reporting period						
Total volume of food (MT)	34 298	27 135	-	3 280	3 863	79 - 10 11
Total cost (US $ million)	18.8	16.3	0.7	1.5	0.3	87 4 8 1

Note: The six projects for Mozambique Regional are counted as one regional operation

WORLD FOOD PROGRAMME (WFP) - REGIONAL BREAKDOWN OF NUMBER OF BENEFICIARIES, VOLUME OF FOOD COMMITTED AND VALUE OF OPERATIONS
(Emergency Operations)

Approved from 01.01.93 to 31.12.93	Total	Sub-Saharan Africa (1)	Asia and the Pacific (2)	Latin America and the Caribbean (3)	East Europe, NIS Mediterranean and Middle East (4)	Percentages (1) (2) (3) (4)
No. of Operations	54	33	9	2	10	
No. of Countries	36	19	6	2	9	
No. of Beneficiaries by purpose (million)						
Refugees/Displaced persons (45 operations)	15.2	8.7	0.6	0.07	5.9	58.8 4 0.4 38.6
Drought/Crop failure (5 operations)	2.1	1.6	0.5	-	-	76 24 - -
Natural disasters (4 operations)	0.6	-	0.4	0.15	0.025	- 70 26 4
Total	17.9	10.3	1.5	0.2	5.9	58 8 1 33
Total volume of food by purpose (MT)						
Refugees/ Displaced persons	1 214 167	440 715	59 640	4 066	709 746	36.3 4.9 0.3 58.5
Drought/Crop failure	78 814	65 014	13 800	-	-	82 18 - -
Natural disasters	15 320	-	8 277	6 210	833	- 54 41 5
Total	1 308 301	505 729	81 717	10 276	710 579	38 6 1 55
Total cost by purpose (US $million)						
Refugees/ Displaced persons	701.2	235.5	17.8	2.4	445.5	33.6 2.8 0.3 63.5
Drought/Crop failure	31.0	26.8	4.2	-	-	86 14 - -
Natural Disasters	5.3	-	2.8	2.3	0.2	- 53 43 4
Total	737.5	262.3	24.6	4.7	445.7	35.6 3.4 0.6 60.4

DHA GENEVA NATURAL DISASTERS INVOLVEMENT IN 1993

SUMMARY TABLE

Date Started	Affected Country/ Region	Disaster	Casualties (n/a - data not available)				Total* populations affected	Amount of damage as reported to DHA	Total ** Contributions reported to DHA	Contributions through DHA***	DHA-Emerg. Grant	DHA Mission	DHA Shipment	No. of Sit/Inf Reps issued
			Dead	Injured	Missing	Homeless						YES/NO		
02 JAN	Fiji	Cyclone "Kina"	20	3	2	n/a	115,000	101,907,894	4,349,933	15,000	15,000	Y	N	Sit 6
03 JAN	Tuvalu	Cyclone "Nina"	n/a	n/a	n/a	200	n/a	n/a	10,000	10,000	10,000	N	N	Sit 1
03 JAN	Solomon Islands	Cyclone "Nina"	3	n/a	n/a	40,000	80,000	20,118,904	231,768	42,978	15,000	N	N	Sit 2
07 JAN	Bangladesh	Thunderstorms	31	n/a	n/a	n/a	750,000	n/a	0	0		N	N	Inf 1
07 JAN	Mexico	Mudslides/Floods	27	n/a	n/a	1,000	4,500	20,000,000	25,000	0		N	N	Inf 1
02 FEB	Indonesia - Java	Floods	85	n/a	5	4,000	37,000	47,000,000	174,869	0		N	N	Inf 2
02 FEB	Philippines	Volcanic Eruption Mount "Mayon"	77	9	2	63,000	108,000	3,158,536	586,933	90,000		N	N	Inf 4
05 FEB	Yemen	Floods	38	n/a	n/a	32,585	32,623	312,000,000	1,741,991	360,529	25,000	N	N	Sit 4
08 FEB	Iran	Floods	375	n/a	n/a	500,000	1,000,000	288,000,000	3,012,253	450,405	40,000	Y	Y	Sit 7
12 FEB	Tanzania	Floods	54	34	0	2,900	201,513	6,000,000	218,620	118,620	25,000	N	Y	Sit 2
17 FEB	Zimbabwe	Cholera Epidemic	n/a	n/a	n/a	n/a	n/a	n/a	0	0		N	N	Sit 1
13 MAR	Cuba	Tropical Storms & Floods	5	100	0	7,500	150,000	1,000,000,000	4,918,196	460,063	25,000	N	N	Sit 5
14 MAR	Pakistan	Avalanches	36	n/a	n/a	n/a	n/a	n/a	0	0		N	N	Inf 1
21 MAR	Pakistan/Afghanistan	Avalanches	85	30	n/a	n/a	n/a	n/a	* IN KIND**	0		N	N	Inf 1
30 MAR	Vanuatu	Tropical Cyclone "Prema"	1	10	0	7,000	12,000	60,000,000	555,736	20,000	20,000	Y	N	Sit 5
01 APR	Ecuador	Rains/Landslides	70	n/a	n/a	n/a	5,631	122,000,000	1,459,697	127,308	25,000	Y	N	Sit 9
07 APR	Mongolia	Snowstorms	12	n/a	0	0	120,000	7,752,000	2,949,197	203,725	25,000	N	N	Sit 3
15 APR	Eritrea	Hailstorms	4	16	n/a	15,659	16,000	5,164,820	2,533,357	402,944		N	Y	Sit 4
27 APR	Colombia	Floods	27	40	43	n/a	n/a	n/a	200,000	0		N	N	Inf 1
05 MAY	Chile	Mudslides/floods	21	58	88	1,225	3,218	12,500,000	232,128	0		N	N	Inf 2
09 MAY	Ecuador/Nambija Area	Torrential Rains/Landslides	n/a	n/a	n/a	n/a	n/a	n/a	0	0		N	N	Inf 2
11 MAY	Argentina	Floods	n/a	n/a	n/a	n/a	n/a	400,000,000	0	0		N	N	Inf 1
12 MAY	Tajikistan	Heavy Rains	0	0	0	53,000	60,000	163,000,000	6,964,017	391,294	30,000	Y	Y	Sit 7
13 MAY	Bangladesh	Tornado	14	n/a	n/a	7,500	n/a	n/a	0	0		N	N	Inf 1
14 MAY	Papua New Guinea	Tropical Cyclone "Adel"	15	6	0	2,600	23,000	650,000	1,550	0		N	N	Inf 2
18 MAY	Jamaica	Floods	9	0	0	275	21,450	2,429,849	75,484	0		N	N	Inf 2

DHA GENEVA NATURAL DISASTERS INVOLVEMENT IN 1993

SUMMARY TABLE

Date Started	Affected Country/ Region	Disaster	Casualties (n/a - data not available)				Total* populations affected	Amount of damage as reported to DHA	Total ** Contributions reported to DHA	Contributions through DHA***	DHA-Emerg. Grant	DHA Mission	DHA Ship-ment	No. of Sit/Inf Reps issued
			Dead	Injured	Missing	Homeless						YES/NO		
24 MAY	Argentina	Earthquake	0	0	0	0	n/a	0	0	0		N	N	Inf 1
27 MAY	Kazakhstan	Heavy Rains	17	n/a	0	12,700	n/a	58,000,000	312,762	312,762	25,000	Y	Y	Sit 5
31MAY	Sri Lanka	Floods	9	n/a	n/a	n/a	145,600	n/a	0	0		N	N	Inf 1
31MAY	Cuba	Floods	14	n/a	4	11,000	115,000	n/a	0	0		N	N	Inf 1
01 JUN	Cuba	Neuromyelopathy Epidemic	0	49,500	0	0	49,500	n/a	8,299,846	15,000	15,000	N	N	Sit 5
12 JUN	Papua New Guinea	Floods	5	n/a	3	29,000	46,000	1,000,000	0	0		N	N	Inf 1
15 JUN	Afghanistan	Mudslides	83	n/a	n/a	1,000	1,300	n/a	0	0		N	N	Inf 2
17 JUN	Russia	Floods	15	441	110	0	6,500	n/a	0	0		N	N	Inf 2
21 JUN	Bangladesh	Floods	28	n/a	0	50,000	3,207,056	n/a	0	0		N	N	Inf 4
22 JUN	Iran	Earthquake	0	n/a	0	0	n/a	n/a	0	0		N	N	Inf 1
26 JUN	Philippines	Typhoon "Koryn"	2	0	0	0	29,413	441,730	0	0		N	N	Inf 2
07 JUL	India	Floods	1,690	n/a	0	n/a	150,000	12,101,666,700	964,094	0		N	N	Inf 5
07 JUL	Pakistan	Floods	16	0	n/a	n/a	263,005	n/a	143,295	0		N	N	Inf 2
23 JUL	Nepal	Floods&Landslides	1,048	268	786	55,000	535,500	200,000,000	10,708,161	32,418	25,000	Y	N	Sit 8
27 JUL	Bangladesh	Floods	162	n/a	n/a	n/a	11,559,536	n/a	644,279	0		N	N	Inf 4
01 AUG	Sudan/Egypt	Earthquakes	3	20	0	0	n/a	n/a	0	0		N	N	Inf 1
05 AUG	Ukraine	Floods	6	n/a	n/a	n/a	300,000	49,168,529	0	0		N	N	Sit 2
07 AUG	Trinidad & Tobago	Tropical Storm "Bret"	0	0	0	200	n/a	n/a	0	0		N	N	Inf 1
08 AUG	Guam	Earthquake	0	71	n/a	n/a	n/a	n/a	0	0		N	N	Inf 1
10 AUG	Nicaragua	Trop.Storms "Bret"&"Gert"	13	0	24	n/a	126,225	n/a	1,747,428	20,000	20,000	N	N	Sit 8
10 AUG	Venezuela	Tropical Storm "Bret"	96	586	5	4,000	5,500	2,000,000	384,416	0		N	N	Inf 2
12 AUG	Guinea	Floods	0	0	0	3,500	7,540	140,000	14,534	0		N	N	Sit 2
17 AUG	Belarus	Floods	0	0	0	0	103,428	n/a	115,816	15,000	15,000	N	N	Sit 3
26 AUG	Philippines	Floods	5	n/a	n/a	n/a	258,080	2,600,000	0	0		N	N	Inf 1
31 AUG	China	Dam Burst	290	336	80	15,000	16,000	27,000,000	1,282,693	120,000		N	N	Sit 4
02 SEP	Honduras	Trop.Storms "Bret"&"Gert"&Floods	27	n/a	12	27,000	67,447	10,000,000	1,189,886	75,000	25,000	N	N	Sit 4

DHA GENEVA NATURAL DISASTERS INVOLVEMENT IN 1993

SUMMARY TABLE

Date Started	Affected Country/ Region	Disaster	Casualties (n/a - data not available)				Total* populations affected	Amount of damage as reported to DHA	Total ** Contributions reported to DHA	Contributions through DHA***	DHA-Emerg. Grant	DHA Mission	DHA Ship-ment	No. of Sit/Inf Reps issued
			Dead	Injured	Missing	Homeless						YES/NO		
08 SEP	Uruguay	Storms	0	0	0	n/a	2,000	0	0	0		N	N	Inf 1
28 SEP	Mexico	Trop.Storm "Gert"&Floods	35	n/a	n/a	65,429	203,500	n/a	102,727	27,000	27,000	N	N	Sit 3
30 SEP	India	Earthquake	7,611	n/a	0	100,000	170,000	7,916,700	16,451,752	957,060	50,000	Y	N	Sit 6
04 OCT	Philippines	Typhoon "Flo"	88	35	36	n/a	1,941,531	188,000,000	1,743,697	0		N	N	Inf 5
13 OCT	Papua New Guinea	Earthquake	53	30	0	9,800	89,000	5,000,000	335,032	0		Y	N	Sit 7
24 OCT	Mexico	Earthquake	0	0	0	0	n/a	0	0	0		N	N	Inf 1
03 NOV	Honduras	Floods	174	n/a	200	n/a	15,000	n/a	785,634	0		N	N	Inf 2
29 NOV	Cuba	Floods	30	n/a	4	6,500	500,000	100,000,000	610,804	IN-KIND**	25,000	N	N	Sit 4
30 NOV	Vietnam	Typhoon "Kyle"	144	476	0	55,000	1,000,000	14,200,000	0	0		N	N	Inf 1
06 DEC	India	Cyclone	318	n/a	0	90,000	n/a	312,801,200	0	0		N	N	Inf 2
06 DEC	Philippines	Typhoons "Lola" & "Manny"	351	718	80	365,671	1,432,850	64,000,000	615,140	0		N	N	Inf 3
08 DEC	Vietnam	Typhoon "Lola"	71	20	0	10,000	500,000	16,700,000	0	0		N	N	Inf 1
13 DEC	Costa Rica	Floods	5	1	4	n/a	38,477	980,000	195,461	10,000	10,000	N	N	Sit 3
25 DEC	Malaysia	Floods	7	n/a	3	13,000	n/a	n/a	400,000	0		N	N	Inf 1
28 DEC	Philippines	Typhoon "Nell"	118	30	140	n/a	1,483,990	68,000,000	141,841	0		N	N	Inf 2
29 DEC	Sri Lanka	Floods	0	0	0	0	150,000	n/a	42,980	0		N	N	Inf 1

TOTAL NUMBER OF NATURAL DISASTERS IN 1993 - 68		
TOTAL NUMBER OF INTERNATIONAL APPEALS (International Appeal - Sitrep) - 27		
CONTRIBUTIONS TO NATURAL DISASTERS REPORTED TO DHA:	**77,473,007**	
CONTRIBUTIONS TO NATURAL DISASTERS CHANNELLED THROUGH DHA:		**4,277,106**

* This category covers all those already included in the previous field(casualties), as well as others, whose basic "life-line" needs such as food, sanitation, or medical had to be met.

** This does not include in-kind contributions not costed.

*** Several contributions pledged for ongoing disasters, have not yet been received at DHA-GENEVA. The total amounts can therefore be expected to change slightly, depending on the rates of exchange prevailing at the time of receipt of contribution. The figures reflecting the populations affected and damages may also be revised in the future, based on additional available information.

Please note: Infrep - Information Report, Sitrep - International Appeal

Photo M. Vercruysse

Sources:

DHA Publications, Situation and Mission Reports, United Nations Consolidated Inter-Agency Appeals, Press Releases issued by DHA or by the Department of Public Information, Reuters, articles from the newspapers Le Monde; Journal de Genève; International Herald Tribune; The Times. Other sources have been compiled by the DHA Information Management Branch. Other contributions: United Nations Agencies, Intergovernmental organizations and Non governmental organisations.

The boundaries and names on the maps do not imply official endorsement or acceptance by the United Nations.

It may not have been possible to cover all significant events or to provide fully up-to-date statistical data. We have tried, however, to focus on the essence of humanitarian action, that is the reduction of human suffering. This is, and will remain, the paramount objective of the Department of Humanitarian Affairs.

This Special issue will also appear in French and Spanish.

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